



Xenophon and the Wall of Media

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XENOPHON AND THE WALL OF MEDIA

(PLATES I-III)

How many miles to Babylon?
Three-score miles and ten.
Can I get there by candle-light?
Yes, and back again.

Nursery Rhyme.

IN February of 401 B.C., Xenophon, the Athenian, set out in a contingent of ten thousand Greek mercenaries in the army of Cyrus, the Pretender to the throne of Persia. Cyrus, in fact, was leading the army against his brother Artaxerxes, the Great King of Persia, though the real object of the expedition was not revealed officially until the army reached Thapsacus on the Euphrates in July and crossed the river from Syria into Mesopotamia. Xenophon joined the expedition more or less as a diplomatic attaché, not a soldier. But he became an observer and critic, and, since he was a man of talents, he was driven by self-preservation and by disasters which befell them in the end, virtually to take command.¹ His account of these events was not published or written till many years had elapsed: but it is clear that it must have been based on a regularly kept log or diary.

The geographical problems which Xenophon's report of their itinerary raises have occupied scholars and travellers for nearly two hundred years, the earliest attempt to identify the sites mentioned by him being that of d'Anville in 1779.² For this long history of an unsettled problem, the reasons are that, firstly, we still know little from cuneiform sources about the ancient geography of Central Mesopotamia, and as yet no monograph exists which studies Babylonia in this period; secondly, that the record of Xenophon, though invaluable, is bedevilled occasionally by false reports or inadequate or misunderstood data, or possibly by errors in transmission of the text; and in our own time, progress has been held up by insufficient study of the ground, in particular of the ancient courses of the Euphrates and Tigris and the canals that fed them—and finally, by the inadequate use of aerial photography.

Xenophon's record is, however, reasonably reliable when he is speaking from personal observation or experience, and not from a hearsay report. A more general form of inexactitude in his account derives from our uncertainty as to the length of the parasang in which most of his distances are given. The *parasang*, the Persian measure of distance, was, properly speaking, like many Oriental measurements, somewhat elastic. The parasang was obviously modelled on the Babylonian measure of distance called *bēru*, or 'double-hour', which, it is said, was a distance of 3·738 miles in the Neo-Babylonian period.³ As Layard wrote in 1853:⁴

'The Parasang, like its representative the modern Farsang or Farsakh of Persia, was not a measure of distance very accurately determined, but rather indicated a certain amount of time employed in traversing a given space. Travellers are well aware that the Persian Farsakh varies considerably according to the nature of the country, and

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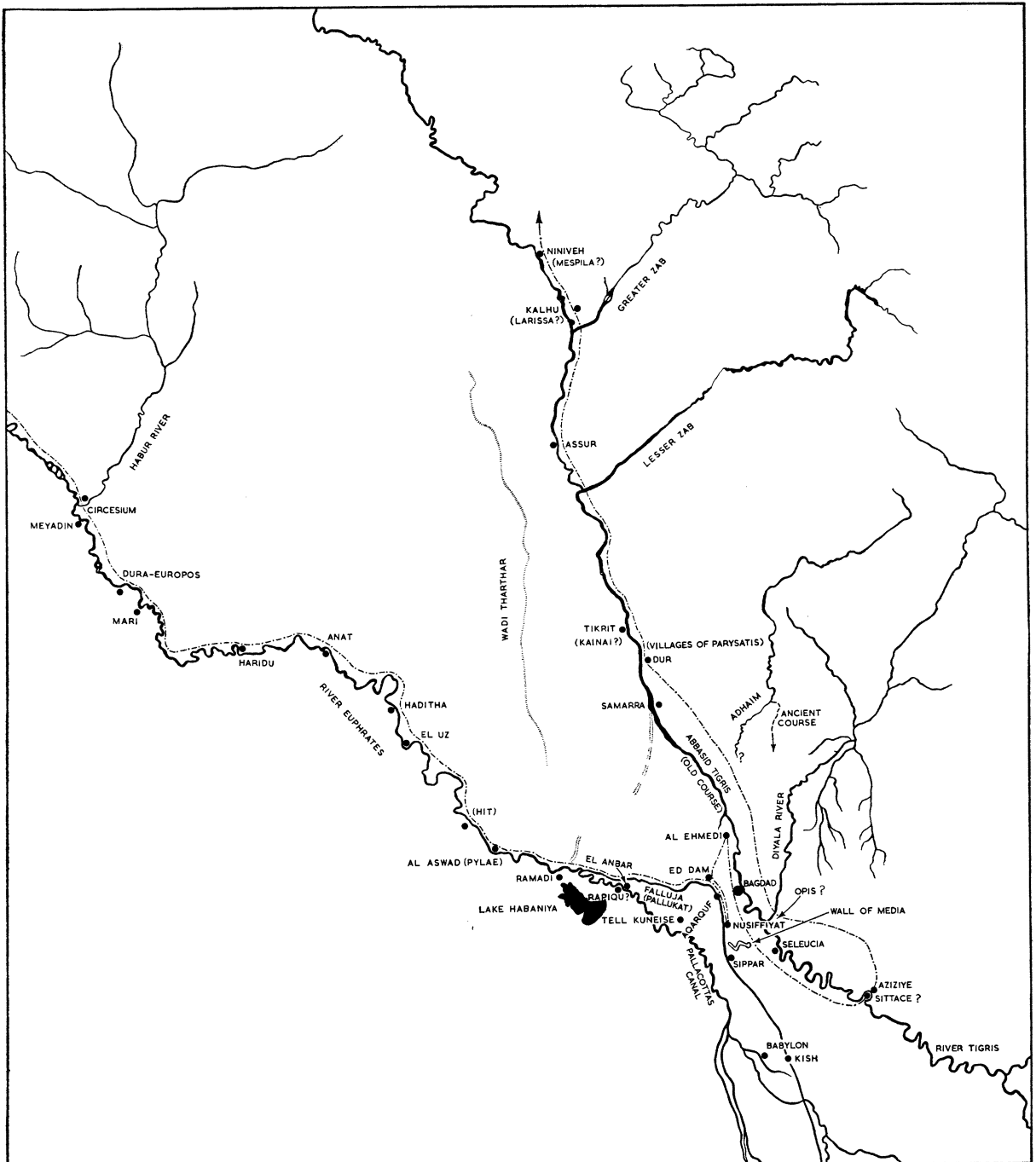
Anabasis, see F. Dürnbach, 'L'Apologie de Xenophon dans l'*Anabase*', *REG* 1893 343-86.

² *L'Euphrate et le Tigre* (Paris, 1779).

³ E. F. Weidner, *Archiv für Orientforschung* xvi (1952) 19-20; Thureau-Dangin, 'Numération et métrologie sumérienne', *Revue Assyriologique* xviii.

⁴ *Nineveh and Babylon* (1853) 59-60.

¹ For an interesting discussion of the motives for, and circumstances attending, the publication of the



MAP

Showing route of the Ten Thousand and defences between Ramadi (Umm Raus) and Samarra.

the usual modes of conveyance adopted by its inhabitants. In the plains of the Khorassan and Central Persia, where mules and horses are chiefly used by caravans, it is equal to about four miles, whilst in the mountainous regions of Western Persia, where the roads are difficult and precipitous, and Mesopotamia and Arabia, where camels are the common beasts of burden, it scarcely amounts to three. The *farsakh* and the hour are almost invariably used as expressing the same distance. That Xenophon reckoned by the common mode of computation of the country is evident by his employing, almost always, the Persian "Parasang" instead of the Greek Stadium; and that the "Parasang" was the same as the modern hour in the reckoning of the natives.'

So, too, Colonel Leake⁵ pointed out:

'As the ancients had no portable instrument for measuring portions of a day, and could not ascertain the rate per hour, a day's journey was the most exact measure of distance, both by sea and land; though few distances thus reported have reached us, because ancient Geographers and Historians aiming at greater precision have converted the days into stades, and by reporting these without mentioning the number of days, have generally given us instead of a fact, the result of an uncertain calculation.'

It is therefore difficult to know, except approximately, what distance is meant by the elastic term of a parasang, but it was in *these regions* probably about three miles and three-quarters for a small force or group.

Further, it can be estimated that the army's average day's march was 5·7 parasangs a day between Ephesus and Cunaxa, after that, slightly more. The route down the valley of the Euphrates is fairly well known from itineraries of various dates, and its principal stages can be established, and in several cases, followed from Assyrian⁶ to imperial Roman times, during the whole of which period Aramaic was the local language (see next page).

The Approaches. We take up Xenophon's story at the point where the invading army of Cyrus is crossing at Thapsacus (to be located at Meskene) the Euphrates into Mesopotamia.⁸ From Thapsacus there was, Xenophon says, a march of nine days, representing a distance of 50 parasangs, until they reached the River Araxes, identifiable as the Habur, flowing into the Euphrates 20 miles below the modern Deir-ez-Zor, near the ancient Sirku (Circesium). Instead of Haboras, the proper and ancient name of the Habur, he uses Araxes, which seems to be that of a canal, now called Dawrin, running from the Habur to the Euphrates, where the name is still preserved at the exit of this canal by the site named al Erzi or Arasi.⁹

From the Habur River, the army marched down the left bank of the Euphrates through the desert territory lying between Assyria and Babylonia, for five days' march, a distance of 35 parasangs. The desert abounded in wild life—wild asses, ostriches, bustards and gazelles (some of which they hunted and ate, except the ostriches which they could not catch), until they reached a deserted city of great size called Korsote, at the junction of the Euphrates with the River Maskas,¹⁰ which surrounds the city. Korsote has been

⁵ *Journal of the Royal Geographical Society* ix 9.

⁶ One of the most detailed and interesting of these is the Assyrian itinerary of King Tukulti-Ninurta II (824 B.C.) who struck down the Wadi Tharthar into Babylonia, then making west to the region of the Tigris below Samarra, then via Dûr-kurigalzu marched south to Sippar, then home via the Euphrates. (Luckenbill, *Annals of Assyria* i § 407-8; A. Musil, *The Middle Euphrates* (New York, 1927) 199-204.)

⁸ i 4.11. The location of Thapsacus (meaning 'a ford', from the Semitic root *ṣṣḥ* 'to pass') is disputed, but seems to have been at Samûma (Meskenê) at the

great bend of the Euphrates. See Pauly-Wiss s.v. *Θάψακος*. Others place it at Raqqa (Nikephorion). The arguments of W. J. Farrell (*JHS* lxxxi (1961) 153-5) for placing it at Carchemish are unconvincing. The distance of Thapsacus from Babylon is given by Eratosthenes (Strabo ii 1.22, 29) as 4800 stadia or 600 miles.

⁹ Musil, *op. cit.*, 221, followed by Du Mesnil du Buisson, *Baghouz, l'ancienne Corsôte* (Leiden, 1948). The Dawrin canal is the Saocoras river of Ptolemy: Musil, 340.

¹⁰ i 5.4.

<i>Assyrian sources</i>	<i>Parasangs (from Thapsacus)</i>	<i>Xenophon</i>	<i>Schoeni</i>	<i>Isidore of Charax (first century B.C.)*</i>	<i>Ptolemy (second century A.D.)</i>	<i>Ammianus Marcellinus (fourth century A.D.)</i>	<i>Modern</i>
				Νικηφόριον	Νικηφόριον		Rakka
			4	Γαλαβάθα, κώμη ἔρημος			Kuleibat Hama
			1	Χουμβανή, κώμη			
Marrata			4	Θιλλάδα Μιρράδα	Θέλδα		Marrat
			—	Βασίλεια, Ἀρτέμιδος ἱερόν. Σεμιράμιδος διῶρυξ			
			4	Ἀλλάν, κωμόπολις			
			4	Βηοναν, Ἀρτέμιδος ἱερόν	Βεθαῦνα		
			6	Φάλιγα κώμη	Φάργα		
Sirku			—	Ναβαγάθ, κωμόπολις		Circesium	Deir-ez-Zor
Ḫabur	50	Ἀράξης Πόταμος	—	Ἀβούρας πόταμος	Χαβῶρα	Chaboras	Ḫabur River
Suḫi			4	Ἀσιχα κώμη	—	—	—
			6	Δοῦρα Νικάνορος	Δοῦρα	Dura	Tell Salahiye
Mari, Ma'eri			5	Μέρραν ὀχύρωμα	—	—	Tell Hariri
Ḫindanu		—	5	Γιδδὰν πόλις	—	—	
Ḫarada, Harzē Maškitē	35	Κορσώτη Μασκάς πόταμος	7	Βηλεσι Βιβλάδα	—	—	Kala't Bulak ?
			6	(Island)	—	—	
Anat		—	4	Ἀναθὼ νῆσος		Anatha	Ana
Talbish		—	2	Θιλαβοῦς νῆσος	—	Thilutha	Haditha ?
		—	12	Ἰζαν νησόπολις	—	Achaiachala	Al-Uz
		Χαρμάνδη		—	—	Paraxmalcha	
Hit, Tuttul			16	Ἀείπολις, ἀσφαλιττίδες πηγαί	Idicara	Diacira Ozogardana	Hit
	90	Πύλαι		—	—	Macepracta	Umm Raus
			12		—	Pirisaboras	Al-anbar
(Totals)	175		102				

* *Parthian Stations* ed. Schoff (Philadelphia, 1914).

identified with a site now called Baghouz, just below Abu Kemal, on the frontier between modern Syria and Iraq, where a French excavator, Du Mesnil du Buisson,¹¹ has dug up material ranging from the prehistoric period to the Iron Age. But it seems to be more likely at ed-Diniyye, the site at a loop of the Euphrates of ancient Ḥarada or Ḥaridu (or Ḥarzē) near Maškitē, where Tukulti Ninurta II spent a night. They are the correct distance from the Habur, and their names are represented in Korsote (for Κορρώτη) and Maskas. The river of that name must be a former canal, now disappeared. After a rest of three days, the army then marched again for thirteen days through the desert, along the Euphrates for 90 parasangs (this figure is hardly excessive; for a large army, the parasangs necessarily became very short) till they reached a place called Pylae, 'the Gates'. The name does not occur elsewhere, but we are allowed the information that the Gates were 23 parasangs (about 86 miles) distant from Kunaxa, followed by the incorrect estimate of the distance thence to Babylon as 360 stadia or 12 parasangs.¹² Felix Jones assumed¹³ that Pylae represents the point where the river narrows at a place called Bekaa, near Ramadi, on the view that the name implies a narrowing of the river like a gate. But it is certain that it marked the 'Gates' or 'entrance' to the frontiers of Babylonia, since Xenophon states the subsequent marches to have taken place 'through Babylonia'. Herzfeld¹⁴ places the Gates at Mada'in-al-Hit, 10 kms. below Hit, where there is only a narrow path along the Euphrates bank. For Musil they were at Al-aswad,¹⁵ about 22 kms. below Hit. Musil's account of this stretch deserves quotation:

'Xenophon's picture of this part of the Euphrates valley is true to nature. The banks thereabouts are formed by porous rocky bluffs containing much crystallised gypsum and dissected by innumerable short, deep gullies. In some places for a distance of many kilometres the Euphrates washes the foot of steep rocks on the left bank, leaving no room for the road, which has to follow a course far from the river over rocky ground and through gullies. Where some of the gullies run down to the Euphrates, marshy and often impassable bays are formed. In a territory of this character the daily marches could not have been of equal length because the army must have taken care to reach, if not every day, then at least every other day, a fairly large bay where it could obtain water and pasture.'

The stretch between Korsote and Pylae included the towns of Anah and Hit, the latter famous for its bituminous springs; in its neighbourhood, we have to place on the right bank the large and prosperous city called Charmande, to which Xenophon describes the soldiers crossing the river on floats to do their shopping. Charmande has been (not wholly plausibly) interpreted as derived from '*kir*', an Aramaic word meaning 'bitumen', 'pitch' and '*mand*', a Persian adjectival ending.¹⁶ Musil explained it as *karma-adda* 'vineyard of Adda' and located it at Adde, opposite Al-aswad.

Fifteen parasangs beyond Hit is said to have been on the right bank a fertile region, where the army of Julian similarly provisioned itself in A.D. 363.¹⁷ But the left bank is described by Xenophon as completely bare, the only industry of the inhabitants being to quarry stones (probably, one assumes, of basalt), to be sold in Babylon for grinding corn.¹⁸ But after Pylae they had entered the rich alluvial plain, irrigated by canals. They marched

¹¹ Du Mesnil du Buisson, *op. cit.*

¹² See below, p. 17.

¹³ 'Researches in the Vicinity of the Median Wall', *Selections from the Records of the Bombay Government* xliii (1850) 263.

¹⁴ Herzfeld, *Ausgrabungen von Samarra* vi (1948). This posthumous work, an excellent survey, unfortunately lacks maps, the plates having been destroyed in the War.

¹⁵ Alois Musil in *The Middle Euphrates*, Appendix II 'Xenophon on the Middle Euphrates', 213-14 esp. 223 (New York, 1927).

¹⁶ Obermayer, *Die Landschaft Babyloniens* (1929).

¹⁷ Ammianus Marcellinus, *Rerum Gestarum libri qui supersunt* xxiv. For a detailed study, see L. Dilleman, 'Ammien Marcellin et les pays de l'Euphrate et du Tigre', *Syria* xxviii (1961).

¹⁸ i 5.5.

for three days, a distance of 12 parasangs, finding traces of a large cavalry force which had retreated out of reach:¹⁹ and on the fourth day's march Cyrus reviewed his army in the middle of the night, as a battle was felt to be imminent.²⁰ Indeed, as it was now approaching September, it is possible that many of these marches were made at night or early morning, to take advantage of the cool. But another day went past, and the army marched on for 3 parasangs in battle formation.²¹ Halfway through this march they encountered a deep ditch dug in the ground, 5 fathoms across and 3 fathoms deep. The ditch, Xenophon reports, extended inland 12 parasangs 'upwards' (*ἀνω*) over the plain as far as the 'Wall of Media' (or so he was told), but there was a narrow passage about 20 feet wide between the river and the ditch. The Persian king had had the ditch dug (he says) as an obstacle, when he heard that Cyrus was advancing against him. It was by this passage that the army of Cyrus got through, for the trench was undefended. Xenophon remarks that, since the king did not obstruct Cyrus at the trench, he seemed to Cyrus and the others to have given up the fight. But they were wrong, and two days later the armies met at a field of battle²² which Plutarch, writing five hundred years later, calls Kunaxa;²³ and it is extremely tempting to connect this northern frontier with the belt of evidently very ancient fortifications which may be seen on the map between Umm Raus on the Euphrates, and Istabalat on the Tigris.²⁴

The centre is occupied by a long dyke called Jalu or Sadd Nimrud ('Nimrod's Dyke'), with traces of turrets and moat on the west side, which follows a curiously meandering course. Alois Musil describes it as 'a rampart (*čalw*) four to six metres high, thirty metres wide at the bottom. In some places bulges projected, resembling remnants of towers. On the west side there extended a shallow depression.'²⁵ The northern continuation, however, is formed by a well preserved and highly developed fortification which was first discovered 136 years ago by Dr Ross²⁶ and confirmed by Lieut. Lynch.²⁷ The latter described it as an embankment or wall of lime and pebbles, 'having towers or buttresses on the northern or north-western face and a deep and wide fosse. This we called the Median Wall; and putting our horses to their full speed, we galloped along it for more than an hour, but finding no appearance of a termination, we returned for our morning observations, taking the word of the natives that it reached to the Euphrates.' This is the feature over 20 miles long which, since Lynch's day, has appeared on most classical maps of the area as the Median Wall. But Capt. Jones already in 1867 pointed out that in spite of appearances neither in extent nor construction did it fit the description.²⁸ This wall is called in Arabic by the name of Al-mutabbaq, meaning 'that which is in layers', i.e. built of recognisable straight lines of bricks. Beyond it is only the now empty steppe, once partly irrigated by the Jalu canal, probably in early Arab times. Al-mutabbaq is described in detail by Herzfeld as a wall 10 courses high of burnt brick, each 136 cm. high, forming a skin 1.4 m. thick filled with pebbles, with rounded towers or buttresses 46.3 m. apart, 53.9 from axis to axis (PLATE I).²⁹ The measurements of the bricks and other distances are said to fall roughly into Arabic measurements of an ell of 51.8 cm. of the period of the Caliph Ma'mun, and according to Herzfeld, the construction of Al-mutabbaq was due to the threat of the Bedouin

¹⁹ i 6.1.

²⁰ i 7.1.

²¹ i 7.14 ff.

²² i 8.1 ff.

²³ *Artaxerxes*.

²⁴ GSGS. 3919. 3rd ed. 1949. Quarter inch. 1.38 N.

²⁵ *Op. cit.*, 51, and 142, 148 and 154. See Goetze, *loc. cit.*, 64 n. 94.

²⁶ J. Ross, 'Notes on two Journeys from Baghdad to the Ruins of al Hadhr . . . in 1836 and 1837',

JRGS ix 445, 1; also 'Journey from Bagdad to the Ruins of Opis and the Median Wall in 1834', *JRGS* xi (1841).

²⁷ Lynch, 'Note on a part of the river Tigris between Baghdad and Samarra', *JRGS* xi (1841) 472-3.

²⁸ *Op. cit.*, 263 (see note 13).

²⁹ *Op. cit.*, 8: Lane, *Babylonian Problems*, described in 1921 the wall near the railway as being of unbaked brick forming two casemates 5 feet broad, with regular bastions at 60 yards' interval.

invading the fertile area along the Tigris bank by the river Dujail in the late Abassid period. At its termination may be seen a small rectangular fort with rounded corner bastions.³⁰ It will be noticed, however, that this fort in the first place is not aligned with the wall, and secondly appears to be of a plan similar to others of the Roman period, e.g. Han al Qattar on the Roman frontier Limes, between Bosra and Palmyra.³¹ It seems that investigation is desirable whether this fort is in fact of the same period as the Wall, or whether it is the remnant of an earlier defence along the same line.

The fortification in the central area seems, when it peters out, to be making for the region of Falluja, though there is a considerable gap, as far as can at present be seen. This may well be because a gap like this did not need defending, since in those days an army could not advance far into the desert away from water.

The Wall at Umm Raus. When we get to the Euphrates side, however, we come to a new discovery, to which my attention was very kindly drawn in 1947 by Mr John Saffery, of Messrs Hunting Aero-Surveys. This feature is a wall running inland towards the rising ground of the desert, to meet the central group of defences (FIG. 1). It runs from Umm Raus on the left bank of the river opposite Habbaniyah. Umm Raus itself is a deserted fort which was described as follows by Alois Musil in 1912 as consisting of 'a few low heaps of old brickwork together with the main part of the stronghold itself, which is rectangular in shape, with walls strengthened by semi-circular towers. On its west side the gate was still visible. From afar the fort resembled a Roman camp.'³² From Umm Raus we see the wall running inland for a distance of about 7 miles, with rounded bastions at intervals for the distance of $2\frac{1}{2}$ miles. It is clear from air photographs taken at about 4,000 ft. that it is a very ancient construction, for two reasons: because its patination is identical with that of the surrounding desert (for, when things are newly cut in the desert they show up differently in colour from their surroundings when seen from above) and, further on, we see where the bastions end, and the wall is continued by a mere trench, that the trench is deeply cut across by *wadis*, or ancient watercourses, of long standing. The trench at this stage follows a line which was set out by markers in the form of small double bunkers placed at intervals through which it had to go. In 1953 the wall was inspected at our request on the ground by Mr D. J. Wiseman, and followed in greater detail by Capt. R. W. Huntington, then at R.A.F. Station, Habbaniyah. The latter kindly reported that the wall appeared to be about 35-45 ft. broad, with bastions projecting about 20 ft. to 25 ft., set at a distance of about 190 ft. from axis to axis. At its highest point the mound made by the wall stood about 7 or 8 ft. high. From the air it can be seen that there are about forty buttresses in all. A drawing made from these photographs is shown in FIG. 1.

Now it is very difficult, without further details and scientific examination on the ground, to pass an opinion which can be relied upon as to the date of such a fortification. Normally, one would expect walls with semi-circular bastions or towers to be Roman, of about the third century A.D., such as are found at Nicaea in Asia Minor. And indeed at first sight this wall at Umm Raus seems to resemble Al-mutabbaq at the Tigris side. But the measurements of tower intervals and sizes differ. Indeed the possibility that a wall with these round bastions may be much older than Roman period need not be excluded. The city wall of the ancient Sumerian city of Uruk had over 800 projecting rounded bastions in its circuit.³³ The west wall of the city of Asshur, one of the capitals of Assyria, built of mud brick and stone by Sennacherib at the end of the eighth century B.C., was marked by small

³⁰ Lane, *Babylonian Problems* 42, points out this feature and illustrates it in a photograph (his Plate 5).

³¹ Poidebard, *La Trace de Rome dans le désert de Syrie*, pls. 38-9.

³² *The Middle Euphrates* 154. It seems that this

wall or fortification was observed but never recorded, during or just after World War I; see Major Mason, *loc. cit.* (note 72).

³³ von Haller, *Uruk-Warka* 7. *Bericht* 41-45, pl. 35.

projecting rounded bastions at short intervals (PLATE II).³⁴ The north Syrian city of Senjirli, built about the same time, had its inner citadel wall with similar rounded bastions on a basis of stone and wood.³⁵ We can only say that such a construction at that period—the eighth century B.C.—was unusual but not unknown, and may have been evoked specially to meet the improvements in siege warfare and the use of battering rams, introduced by the Assyrians themselves, to which these round surfaces sought to avoid a ‘purchase’.³⁶ The interesting thing is that we have here in this Wall at Umm Raus a feature which in its location and general dimensions would seem to qualify well to be identified with the trench hastily thrown up by Artaxerxes against the invading army, described by Xenophon as 5 fathoms wide (about 30 ft.) and 3 fathoms deep (about 18 ft.), and as running up, i.e. into rising ground, a distance of 12 parasangs, to the Median Wall. This last detail he was not in a position to investigate, obviously taking the words of his guide for it, but a distance of 12 parasangs would certainly take us towards the Tigris bank, where a similar defensive feature is placed at Al-mutabbaq. It may well be that both these walls with bastions were a

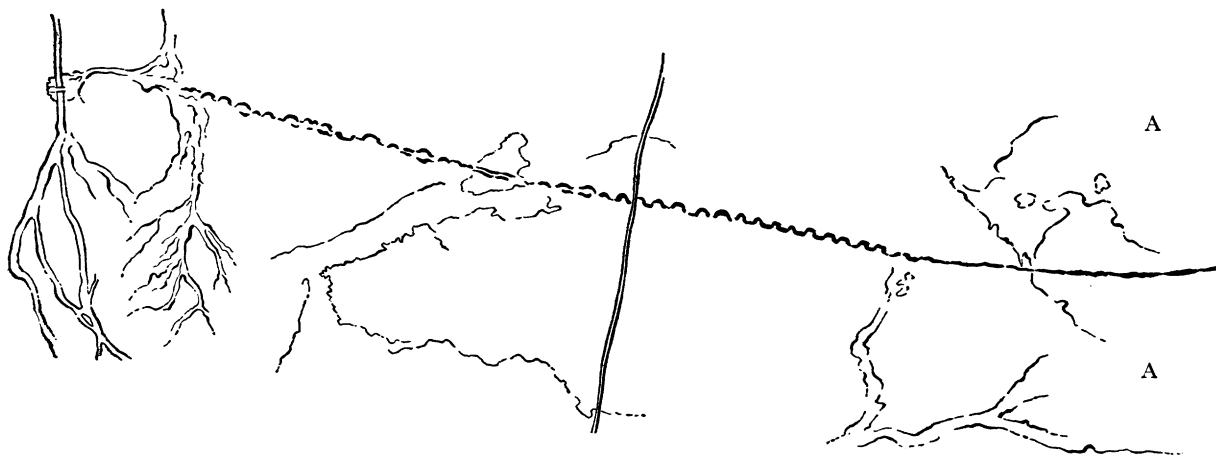


FIG. 1. Traces of Wall at Umm Raus (joining at A-A).

later, e.g. Roman, addition, built on an earlier foundation, but for the present this possibility must be left open. What seems likely is that they mark the course of the early defensive line, the western edge of which, in the form of Xenophon's trench, can still be seen on these photographs.

It is unlikely that these walls shown in this photograph were of so late a date as the Roman period, for this reason: in A.D. 363, Julian, as stated above, marching down the east bank of the Euphrates, reached Ozogardana, which is identifiable with Hit. It was found abandoned and burnt; then *ad vicum Macepracta pervenit in quo semiruta murorum vestigia videbantur, qui priscis temporibus in spatia longa protenti tueri ab externis incursionibus Assyriam dicebantur*.³⁷

From this it would appear that Macepracta must then have been the name of the already ancient walls at Umm Raus. It is difficult to see to what other walls this description could apply.

The Canals. At this point, we have to enter a digression on the canal system of northern Babylonia. This is a subject which is partly rendered necessary by a passage in the

³⁴ Andrae, *Das Wiedererstandene Assur* pl. 72.

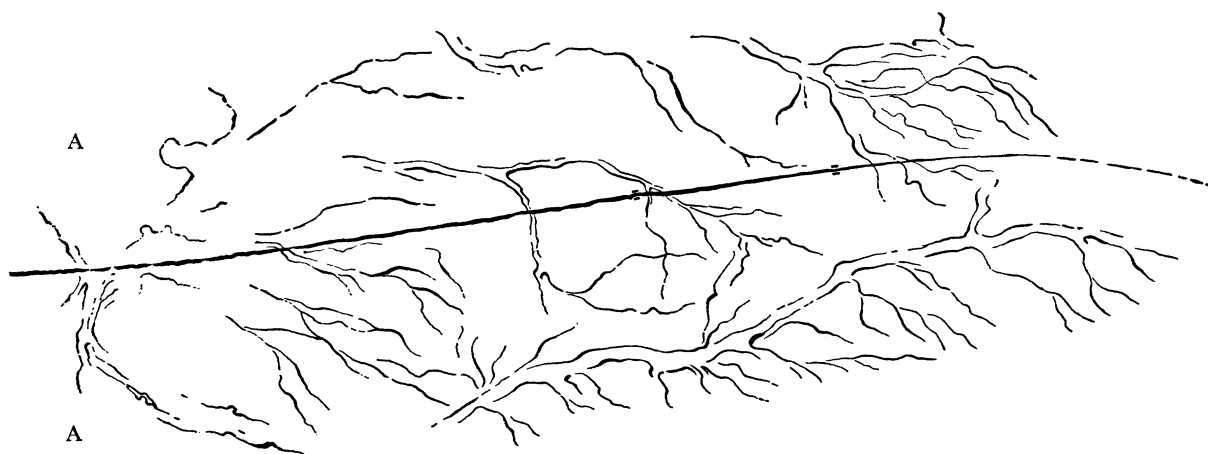
³⁵ Von Luschan, *Ausgrabungen von Sendschirli* ii pls. 15, 16, 30.

³⁶ Dr Gadd points out to me that it is now claimed that battering rams were known in the Old

Babylonian period, being called *wašibum* in the Mari letters. Kupper, *Revue Assyriologique* xlii 139-45, 125. But the great period of their use was by the Assyrians in the early Iron Age.

³⁷ Ammianus Marcellinus xxiv 2.

text of Xenophon immediately following his mention of the trench which runs up to the Wall of Media and which his army passed before the battle. He says: 'There are there [said to be, *ἐνθα δὴ*] the canals which flow *from the Tigris*. They are four in number, a hundred feet (*πλεθριαῖαι*) broad, and very deep, and are navigable by ships carrying corn. They empty into the Euphrates, each one at the interval of a parasang, and they are crossed by bridges.' Since the only canals which most scholars are acquainted with and consider (mistakenly) that Xenophon must have crossed, derive from the Euphrates and flow towards the Tigris, Xenophon's statement has been coolly dismissed as a later gloss, referring to four well-known Euphrates canals [the Saklawiye (or Nahr Isa), Sarsar, Nahr Malkha and Cuthiya] of later times.³⁸ But if we for the moment ignore the question of their source, the fact remains that several such canals as Xenophon describes, existed in the area south of the Umm Raus wall and it was on them, and on the irrigation system cunningly developed by means of them, that the rich agriculture of Babylon depended,³⁹ but our information concerning their pattern is as yet too incomplete for us to grasp exactly to which canals

FIG. I.—*contd.*

he refers. Unfortunately, canals form a subject which has been too long neglected by the archaeologist. A century ago, Commander Selby, Captain Jones and Lieutenants Collingwood and Bewsher made an excellent beginning of the work of trying to plan and plot these canals,⁴⁰ but the knowledge of the time was quite insufficient to make great progress with the task, and, even though today the remains of the high banks of many of these canals are clearly visible above ground, it is extremely difficult without very expert study to decide which are ancient, which belong to the Sassanian, which to the early Islamic period, and which to more modern times. Often a canal may have served for very many periods, at least for part of its course. There may be historical references which can be used, but are not always easy to understand or to reconcile with each other. Some canals were conducted between banks on the level of the plain, not cut into it, and thus easily became silted up, or became useless by the shifting of the river bed. It is obvious from a glance at the positions of the ancient sites of Babylonia that have been identified, and of the tells representing those which have not, that these lie along lines representing extinct water-courses of this kind. It was first in 1953-4 that the American School of Oriental Research

³⁸ See Musil, *op. cit.*, Appendix VI, 'The Canals of the Middle Euphrates'. On these canals, see Streck, *Die Alte Landschaft Babylonien* (1900-1); Alois Musil, *op. cit.*; Lestrang, *The Lands of the Eastern Caliphate* (1905); and Obermayer, *Die Landschaft Babylonien* (1929).

³⁹ See on this, Laessle, 'Reflexions on Modern

and Ancient Oriental Waterworks', *Journal of Cuneiform Studies* vii (1953).

⁴⁰ 'Surveys of Ancient Babylon' by Commander W. Beaumont Selby, Lieutenant W. Collingwood and Lieutenant J. B. Bewsher (London, 1885). See note 77.

in Baghdad seriously faced this basic question of Babylonian geography,⁴¹ having successfully already undertaken a smaller survey of the central Diyala region, to the east of the Tigris. The area of Central Babylonia was then surveyed by Robert Adams and Vaughn Crawford, who published a brief preliminary report in 1958.⁴² Though the area with which they were concerned was mostly further south than that which interests us, it yet has some relevance (FIG. 2). It shows that, at least until the Kassite period, i.e. the end of the second millennium (they did not yet make any report on the first millennium B.C.) the Euphrates flowed through Sippar as far as Warka (Uruk) and beyond. This had always been assumed by modern scholars, on the strength of texts and other evi-

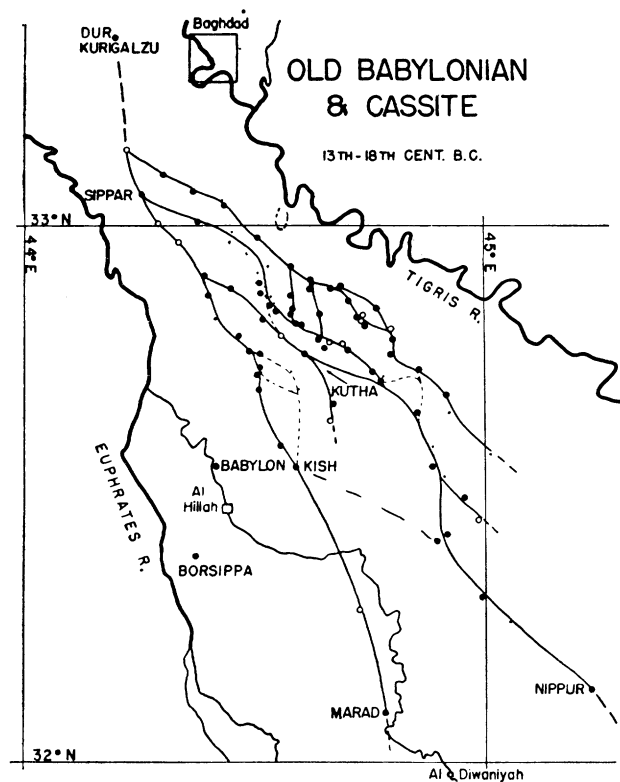


FIG. 2. Diagram showing old course of Euphrates and canals on left bank. From *Sumer* xiv (1958) 102, Fig. 6.

dence (for example, the name of the river Euphrates being written in cuneiform as ÍD.UD.KIB.NUN.^{K1} 'the river of Sippar') but the original course of the river had nowhere been properly plotted before. Unfortunately, this expedition has as yet only partly surveyed the left bank of this ancient Euphrates course, so that much more still remains to be done, e.g. about its canals on the other, or west, bank, towards Babylon. Again, the American expedition has not yet published a map of the canals of the neo-Babylonian period at all. Nor does any definitive study exist even to show from cuneiform sources what cities were still flourishing in that period and in that of the Achaemenians.⁴³ But

⁴¹ See 'Mesopotamian Mound Survey', *Archaeology* vii (1954); Goetze, 'Archaeological Survey of Ancient Canals', *Sumer* xi (1955) 127-8.

⁴² Robert M. Adams, 'Settlements in Ancient Akkad', *Archaeology* x (1957) 270-3; 'Survey of Ancient Watercourses and Settlements in Central Iraq', *Sumer* xiv (1958) 101-4.

⁴³ Tablets dated under Achaemenid kings have been found, dated and inscribed from the following cities: Borsippa, Babylon, Sahrinu, Sippar, Nippur, Dilbat, Hubadīšu, Kutha, Uruk, Ur (information from Mr D. J. Wiseman).

the American expedition's already published report and diagrams emphasise one important fact—that the Euphrates ran down to Sippar, due south, from the Kassite capital of Dûr-kurigalzu (Aqar Qûf), which today lies in a marshy space called the Aqar Qûf depression, a little west of modern Baghdad.⁴⁴ This prompts the question which does not seem to have been asked: how did the Euphrates get to Dûr-kurigalzu? The answer can only be: that in ancient times it must have left its present course where it meets the soft alluvium west of Aqar Qûf—namely, in the neighbourhood of Al-anbar above Falluja, where a watercourse, known to be of great age, called by various names—Nahr Isa,⁴⁵ Dukeil or Karma, branches off and runs eastwards towards the depression of Aqar Qûf. At Aqar Qûf, banks of a great river course, running from the west then turning sharply south towards Sippar, can here be clearly recognised from the air. From Sippar in neo-Babylonian times, the river seems to have been deflected largely into the Arah̄tu canal⁴⁶ to flow through Babylon, and in fact, the waters of Euphrates and Arah̄tu were deemed to be as one. In Babylon, the left bank was called the Arah̄tu bank, the right, that of the Euphrates.⁴⁷ It is this pattern of rivers which, I believe, enabled Strabo and other Greek writers to describe the shape of Mesopotamia, with its sharp bends in the Euphrates, as resembling a rower's cushion or seat, in a trireme (ὕπηρέσιον).⁴⁸ But we may now be justified in tracing the next step in the history of the Euphrates. In an article published in 1899, Meissner⁴⁹ connected a very important Babylonian canal the AP.KAL or Apkallatu (which, in Hellenistic times, was called the Pallacottas canal), with the site of Falluja, known in Syriac as Pallughtha, a little below Al-anbar. We have a valuable description of the Pallacottas and its importance in the first century by Arrian (quoting Aristobulus) in his work on Alexander.⁵⁰ Alexander, with his usual restless energy, constructed a harbour at Babylon large enough for a thousand ships.

'While the new warships were under construction and the work of dredging the harbour proceeded, Alexander sailed from Babylon down the Euphrates to the river known as Pallacottas, about 800 *stadia* downstream from the city. The Pallacottas is not actually a river rising from springs, but a canal leading off from the Euphrates. Now the Euphrates, which rises in the mountains of Armenia, is in winter a shallowish river and runs well within its banks, but in spring, and especially round about the summer solstice, its volume is greatly increased by the melting of the snow in the Armenian mountains, so that the water, rising above the level of its banks, floods the neighbouring Assyrian plains. At least, this flooding would inevitably occur were it not for the cutting by which its waters are diverted along the Pallacottas into the marshes and lakes which continue from that point almost into Arabia, and passing thence over a vast area of swampy land, finally reach the sea by a number of ill-defined channels.

'In autumn, at the setting of the Pleiades, after the snows have melted, the level of the Euphrates drops, yet even so, most of its water continues to find its way along the Pallacottas canal into the lakes; thus, unless the canal were closed by a sluice, to block the entrance of the river-water and allow it to flow along its proper channel, it would,

⁴⁴ Dûr-kurigalzu, founded by the Kassite king, Kurigalzu I (c. 1400 B.C.) appears to occupy the site of an older Sumerian city named Esā. Poebel, 'The City of Esa', *Miscellaneous Studies* (Chicago, 1947). (I owe this reference to Dr E. Sollberger.)

⁴⁵ Poebel, *op. cit.*, plausibly suggests that this name, used in Islamic times, and popularly said to refer to the 'Isa, the uncle of Mansur, is, in fact, an adapted recollection of Esā.

⁴⁶ See T. Jacobsen, 'The Waters of Ur', *Iraq* xx (1960) 175.

⁴⁷ E. Unger, *Babylon, die heilige Stadt* (1931).

⁴⁸ Strabo ii 1.23. In xvi 1.22 he says that Mesopotamia contracts in shape, projecting to a considerable length; the shape of it somewhat resembles a boat, and the greatest part of its periphery is formed by the Euphrates.

⁴⁹ B. Meissner, 'Pallacottas', *Mitteilungen der Vorderasiatisch-ägyptischen Gesellschaft* i (1896) 177-89.

⁵⁰ vii 22.

at this season of the year, empty the Euphrates completely, and so prevent the irrigation of the Assyrian plains. The construction of such a sluice was undertaken by the governor of Babylonia; it proved a tremendous task and the result was unsuccessful, as the soil at that point is mostly soft, wet clay which is easily penetrated by the water of the river. Consequently, it was no easy matter to keep it from percolating into the canal, though for three months over 10,000 Assyrian workmen were kept on the job.

'When these facts came to Alexander's knowledge, he was anxious to do something to improve Assyria's prospects. Accordingly, he proposed to construct a really efficient sluice at the junction of the canal and the river; however, at a spot some four miles lower down he observed that the soil was of a harder and stonier nature, and it occurred to him that if a new cutting were carried from that point into the Pallacottas canal, the problem might be better solved, for the water would be unable to penetrate the hard, impermeable ground, and could easily be shut off by the sluice at the proper time.'

The same story in abbreviated form is quoted by Strabo,⁵¹ writing about a century before Arrian. Some confusion has been caused to scholars who understand by this reference that the Pallacottas ran south of Babylon and was 800 stadia long (a hundred miles), which, in any case, is a wild exaggeration. But, in fact, Arrian need not mean at all that Babylon was its point of commencement. On the contrary, his statement can be explained by Meissner's theory that Pallacottas is represented by the name of the modern village of Falluja, the earlier Syriac name of which was Pallughtha. Pallughtha is a word derived from Semitic root '*plg*' meaning 'division'; for example, in *Genesis* x 25, we meet the name of one of the descendants of Noah whose name was Peleg, who was so called, we are told, 'for in his days the earth was divided'. In Akkadian, *palgu* and in Hebrew, *peleg*, means a canal, and the Syriac name *Pallughtha* means 'regulating' of a river.⁵² Pallughtha, in fact, in Babylonian times, was the place called in Babylonian Pallukat, founded by Nebuchadnezzar, and the very significant information is preserved that Pallukat paid the tribute of a tithe to the city of Sippar.⁵³ We may easily conjecture that it was because at or near this point, where the waters of the Euphrates were heavily deflected, Sippar lost a large part of its water, and the wealth it brought. What then has become today of the upper course of the Pallukat or Pallacottas canal? For it seems to be lost. I think the explanation is, that at some date after Aristobulus, and perhaps well after the time of Ptolemy, the Euphrates changed its course completely into the channel of the Pallacottas canal, doing what Aristobulus had described as the ever-present danger. According to his remarks, the junction of the Pallacottas with the Euphrates (at the Macedonian settlement to which Pliny gives the name Bura⁵⁴) is to be sought a little below Falluja. The Euphrates' main channel must then, at the time of Alexander, have struck south-eastward towards Sippar at this point. Traces of this Euphrates' second phase are probably marked by the ancient Abu Ghureib watercourse, now dried up. The Pallacottas, meanwhile, ran more or less to the west of Babylon, being linked with Babylon by another famous canal, the Arah̄tum, which ran down through Babylon, perhaps from Sippar.

Cyrus the Great's Capture of Babylon. We may perhaps digress to touch here in parenthesis the question of the fall of Babylon in 539 B.C., when Cyrus the Great, the namesake of Xenophon's hero, marched successfully into Babylonia and overthrew its defences, so carefully constructed by Nebuchadnezzar. Herodotus⁵⁵ has a circumstantial account of how Cyrus turned the waters of the Euphrates aside from following their course into Babylon

⁵¹ xvi 1.9-11.

⁵² 'Pallughtha—nicht eigentlich ein Kanalname, sondern ein Ausdruck für die Regulierung des Euphrat selbst', Herzfeld, *op. cit.*, 13.

⁵³ Meissner, *loc. cit.*, 186.

⁵⁴ *NH* ii 5.30.

⁵⁵ i 189-91.

by switching them into the great lake which Nitocris, i.e. Nebuchadnezzar, had prepared, presumably that on the north side of the Median Wall, intended as part of the defences of the city and which Herodotus himself describes, attributing the lake to Nitocris. An account somewhat similar to Herodotus' is followed by Xenophon himself in his *Cyropaedia*.⁵⁶ There is no confirmation of this story from Oriental sources. The *Book of Daniel* does not know it—only that Babylon's fall was by surprise during a feast.⁵⁷ The *Babylonian Chronicle*⁵⁸ describes Cyrus crossing the Tigris at Opis, where he won a battle in the month of Tishri (September), and Sippar surrendered. He then advanced towards Babylon, but did not enter it until the seventeenth day of the month of Mar-Heshvan (October). The delay may be explained if we suppose the story of the draining of the river Euphrates to be true, not by his filling the lake north of the Wall (which would surely have been done already by the Babylonians if Babylon was to be put into a posture of defence), but by the probability that Cyrus sent a detachment on to Falluja to switch the Euphrates (which was then already at low water, being October) into the course of the Pallacottas channel or into the lakes. This would certainly have had the effect desired of emptying the waters of Babylon, and would make much better sense as an explanation than the story reported to the Greeks.

Pirisaboras and Macepracta. From Sippar, another great canal, called the Royal canal, or in Babylonian, *nar šarri*, in Aramaic, *nar malkha*, seems to have taken off in an easterly direction to meet the Tigris at Opis. It was certainly of great antiquity.⁵⁹ By the first century B.C., its point of exit from the Euphrates was called Neapolis, 22 *schoeni* (the equivalent of parasangs) below Besēchana (Al-anbar above Falluja), and according to Isidore of Charax,⁶⁰ this was the route by water to Seleucia. By the late first century A.D., the section nearing the Tigris had silted up and was reopened by Severus and again by Trajan.⁶¹ At the same period, however, it would seem, the first, or original bend of the Euphrates turning sharply eastwards at Al-anbar along the Nahr Isa channel (*alias* the Karma or Saklawiye) was still in full use, as Pliny shows⁶² when he describes how, at the village of Massicé (Isidore's Besēchana, Parthian Mšyk,⁶³ later Pirisaboras) 'the Euphrates divides into two channels, the left one of which runs through Mesopotamia past Seleucia, and falls into the Tigris as it flows round that city. Its channel on the right runs towards Babylon, the former capital of Chaldaea, and flows through the middle of it.' But by Pliny's time, the name Nahr malcha had been extended for some reason to the Nahr Isa channel, for he goes on: *Sunt qui tradunt Euphraten Gobaris praefecti opere diductum esse ubi diximus findi, ne praecipiti cursu Babyloniam infestaret, ab Assyriis vero universis appellatum Narmalchan quod significat regium flumen. Quā dirivatur oppidum fuit Agranis e maximis, quod diruere Persae.* The canal in question would appear to be the Nahr Isa, but Agranis is quite unknown from other sources.⁶⁴

⁵⁶ vii 5.

⁵⁷ ch. v.

⁵⁸ Wiseman, *Chronicles of Chaldaean Kings* (1956).

⁵⁹ According to Pallis, *The Antiquity of Iraq* 10, Herzfeld, *op. cit.*, it is first mentioned in the time of Nazimaruttaş. Pinches, *JRAS* 1917 137, 'An Early Mention of the Nahr Malka', publishes a tablet from Jokha (Umma) of the time of Bur-Sin of Ur, mentioning Sura and the Canal of the King.

⁶⁰ *Parthian Stations* 1.

⁶¹ Ammianus Marcellinus vi 1.

⁶² *NH* v 21.90.

⁶³ For the identification, see Honigsmann and Maricq, *Res Gestae Divi Saporis* 110 ff., from the newly discovered trilingual of Naksh-i-Rustem.

W. B. Henning, 'Βεσῆχανα πόλις: ad BSOAS xiv 512 N. 6', *Bulletin of School of Oriental Studies* 1953 xv/2.

⁶⁴ The identification of the site of Agranis is highly obscure, but it should be near Al-anbar. Dilleman (*loc. cit.*) has complicated matters by twisting a passage in Pliny '*sunt etiamnum in Mesopotamia oppida: Hippareni, Chaldaeorum doctrina et hoc sicut Babylon—juxta fluvium qui cadit in Narragam, unde civitati nomen*' (*NH* vi 30.123) to bring Agranis into connection with Sippar. In about 1090 B.C. Tiglath-pileser I marched against Babylon and captured the cities of Dur-kurigalzu (= Aqar Qūf), Sippar-of-Shamash (= Abu Habbah), Sippar-of-Anunitum and Babylon, and returned via Opis. The site of 'Sippar-of-Shamash' (Abu Habbah) is well known,

From the mention of 'all the Assyrians', however, it is clear that the standpoint of the description is outside Babylonia, i.e. north of the Nahr Isa. Agranis must therefore have stood near Al-anbar or Pallukat.

In A.D. 363 the Roman Emperor Julian marched down the Euphrates against the Persian army of the Sassanians, and his itinerary is recorded in the eye-witness account of Ammianus Marcellinus.⁶⁵ After passing a city which Ammianus calls Ozogardana (identifiable as Hit, on the Euphrates, by his mentioning the springs of bitumen which are found there), he says they came to the village of Macepracta in which were seen the half-destroyed remains of walls that in former times stretched to a long distance to protect the country from invasions from without. These walls we have discussed. Here, he goes on to say, the river divides into great arms, one leading to the inner regions of Babylonia, the other, which is called the Nahar Malcha, or 'royal river', flows through Ctesiphon. In calling it the Nahar Malcha (which lies further south) some contend Ammianus was mistaken; otherwise he was correct: but as I have shown, the Nahr Isa appears to have been then so called. At the beginning of this stream, there was (he says) a lofty tower like a lighthouse, by which the infantry passed on a carefully constructed bridge. After Macepracta, they came to the city of Pirisaboras and took it. Now, Pirisaboras is without any question Piruz-sabur, 'victorious Sapor', a city previously called Mšyk (or Massicē by Pliny) or Besēchana, rebuilt by Sapor II in the first half of the fourth century, and scholars are on the whole agreed that it is represented by the ruins called Al-anbar, 'the arsenal', just north of Falluja. It may be remarked that Al-anbar, or Pirisaboras, was a centre which included a very important Jewish settlement, called Pumbaditha, famous for its academy of Talmudic learning from A.D. 259 to 342, the identification of Pumbaditha with Al-anbar being well known to the Spanish-Jewish traveller, Benjamin of Tudela, in the twelfth century A.D.⁶⁶

but that of the other Sippar, that of Anunitum, is not. It clearly lay between Abu Habbah and Babylon, but is not mentioned again. It is, however, known that Sippar-of-Anunitum was a next-door neighbour of the city of Akkad (the site of which is likewise unknown), being separate from it only by a canal called the *nār Agādē* or 'river of Akkad' (Ebeling, *Reallexikon der Assyriologie* s.v. 'Akkad'). But the reference in the Bible, 2 *Kings* xix. 34, to the name of Sepharvaim, a city which the Assyrians claim to have destroyed, being a dual form, has suggested to some that both Sippars existed into the seventh century B.C. In fact, both Akkad and Sippar-of-Anunitum survived certainly into the sixth century B.C., for Nabonidus rededicated an identically-named temple in each (Ebeling, *loc. cit.*). Sippar-of-Shamash lasted certainly into Achaemenid times. While, therefore, it would seem that Sippar-of-Anunitum formed a twin city with Akkad, it is not clear that Sippar-of-Anunitum had any intimate geographical connection with Sippar-of-Shamash. Dilleman, however, claims that Sippar(-of-Shamash) formed a double city ('ville jumelle') with a non-existent city, Agané (which is evidently a misreading of the name Agadē = Akkad), and sees in a hypothetical *nar-Agane the interpretation of both Agranis and 'Narraga' of Pliny. But Andrae and Jordan examined the terrain around Sippar(-of-Shamash) in 1927 in detail and could find no trace of a second twin city ('Abu-Habbah-Sippar', *Iraq* i (1934)). It is, however,

perfectly possible that Pliny, in mentioning in his almost certainly garbled passage the river Narraga, near Sippar, was referring to the Nar-Agadē. The passage should probably be amended: '*Hippareni, Chaldaeorum doctrina et hoc sicut Babylon juxta fluvium Narragam qui cadit in <Euphratem> unde civitati nomen*', the last statement being perhaps a clumsy attempt to derive Hippareni from Euphrates; it may even reflect some confused knowledge of the fact that the Euphrates was once called 'the river of Sippar'.

It is usually assumed that Hippareni refers to Sippar (Ptolemy's Sippara), but even that requires proof, since the change of 's' to 'h' is strange. In 1921 Andrae and Jordan, a short distance to the east of Sippar, examined another massive ruined site named Tell-ed-Deir, surrounded by a wall, dated at least to the 1st dynasty of Babylon.

To the east side, the still-visible defences of Tell-ed-Deir are formed by a dried-up stream bed. Whether another 'twin' city lay on the far side of the bed cannot be stated.

⁶⁵ See Dilleman, *loc. cit.*, for a detailed evaluation of Ammianus' and Zosimus' testimony.

⁶⁶ Elkan Adler, *The Itinerary of Benjamin of Tudela* 53 (34). 'Thence (from Rahbah) it is a two days' journey to Karkisiya. [Circesium, Deir-ez-Zor.] Thence it is two days to El-anbar, which is Pumbedita in Nehardea.' Benjamin evidently travelled by boat or raft. Nehardea is used apparently to describe a district.

Pumbaditha means in Aramaic, 'mouth of separation', i.e. where the rivers divide. The chief watercourse which took off then from the Euphrates was the navigable canal now called Nahr Isa or Saklawiya, but called in Sassanian times the Šunaya canal, from the city of that name situated on the Tigris, where the canal debouched. The Šunaya at its exit from the Euphrates was crossed by a great bridge called the Kantara Dimimma. This is, of course, the bridge mentioned by Ammianus. At Pumbaditha was a population of 90,000 Jews. It was the seat of an autonomous Jewish community under the Exilarch, or ruler of the Exile who resided there with a bodyguard of 400 men officially recognised by the Sassanian king.⁶⁷ The size and substantial character of the remains near Falluja (i.e. at Al-anbar?) may be gauged from the account of a sixteenth-century German traveller, Dr Leonhart Rauwolff, who was so impressed that he thought he was in ancient Babylon. His German manuscript, formerly in the Arundel Library of Gresham College, was translated and published by John Ray in 1693.⁶⁸ In 1573, Rauwolff, on his way to Baghdad, travelled downstream from Bir by river to Falluja which he calls Felugo (or Elugo). He describes seeing, a little above Felugo, remains of an old bridge, 'pieces and arches of which were still remaining, of burnt brick, of great strength'. He remarks that this was the only bridge to be seen in the whole stretch from Bir, and is astonished at its construction, the river being there at least half a league broad and very deep; further, he saw just before the village of Falluja (i.e. at Al-anbar?) the hill 'whereon the castle did stand in a plain, whereon you may still see ruins of the fortification, which is quite demolished and uninhabited; behind it, pretty near to it, did stand the Tower of Babylon . . . this we see still, and it is half a league in diameter, but it is so mightily ruined and low, and so full of vermin that have bored holes through it, that one may not come near it within half a mile, but only in two months in the winter when they come not out of their holes'. If this was Al-anbar, the bridge, the citadel and the tower may have been those dating from the time of Julian. Remains of this great town can still be clearly seen from the air, north-east of Falluja, even the ancient streets being discernible, the ancient bed of the Euphrates can be clearly seen diverging from its present course, and the double city wall and citadel.

But let us return to the canals. Between Dûr-kurigalzu and Sippar, the names of at least two important canals are known. One of these was called the Patti-Bêl, on which Tukulti-Ninurta II rested in 884 B.C. when marching from Dûr-kurigalzu (Aqar Qûf) to Sippar.⁶⁹ Another was the Patti-Enlil, perhaps the same as a canal the name of which in earlier times was written as ME-Enlil. This, it has been suggested,⁷⁰ was a name for the section of the Euphrates between Dûr-kurigalzu and Sippar. But there seems little proof of this, and the Sumerian documents (to be quoted below) suggest rather that it ran on an easterly course between the Pallacottas and the Tigris. In addition to these, a famous canal called Libit-ĥegalli, or Banitum, ran from Babylon through Kish to the Tigris. The diagram of the Euphrates canals below Sippar published by the American expedition shows there to have been two or three further networks, for which we await names. The canals which flowed from the Tigris have not yet been mapped. In the light of these facts, the statement in Xenophon's text regarding the three great canals must clearly be treated with respect.

Kunaxa. According to Xenophon, the battle took place at an unnamed spot 360 stadia (about 30 miles), but according to Plutarch, 500 stadia distant from Babylon. The

⁶⁷ Obermayer, *op. cit.*, 70 ff.

⁶⁸ John Ray, *A Collection of Curious Travels and Voyages*, 2 vols. (1693).

⁶⁹ See note 6. The Patti-Bêl was also called the river Pittia, Waterman, *op. cit.*, 883.

⁷⁰ Meissner, *loc. cit.*; according to Pallis, *op. cit.*, 10, the ME-Enlil was the name of the section from Pallukat to Sippar. This seems a little difficult.

Jacobsen claims the ME-Enlil 'left the Euphrates' right bank at Kish', 'The Waters of Ur', *Iraq* xxii (1960) p. 176 n. 1, p. 177. He bases this statement ostensibly on Kraus' article in *Zeitschrift für Assyriologie* li 57. But neither Kraus nor the interesting Sumerian text he published say anything of the kind.

battlefield is customarily identified with Tell [Aqar] Kuneesha (Kuneise) on a slope near the river, 57 miles north of Babylon (= 500 stadia).⁷¹ But I find this identification difficult to accept, as I shall explain later. If we take Xenophon's usual ratio of 30 stadia to a parasang, 360 stades would be about 12 parasangs, i.e. about 30 miles by road from Babylon, but Kuneise is much farther (57 miles). Major Mason, following Chesney, put the battlefield near Mufraz, north-west of Sippar.⁷² Herzfeld placed it at Falluja.⁷³

It is suggested by some that Pliny's Agranis or Agranum lived on, as Hagraunia, into the third century A.D.; this commonly-accepted identification may be, or perhaps more likely, is not, true, but in any event, Hagraunia abutted on the great Jewish centre and academy of Nehardea, to which it formed a citadel.⁷⁴ Nehardea, in fact, was the centre of the Jewish diaspora from the time of Josephus until it was sacked and destroyed by the

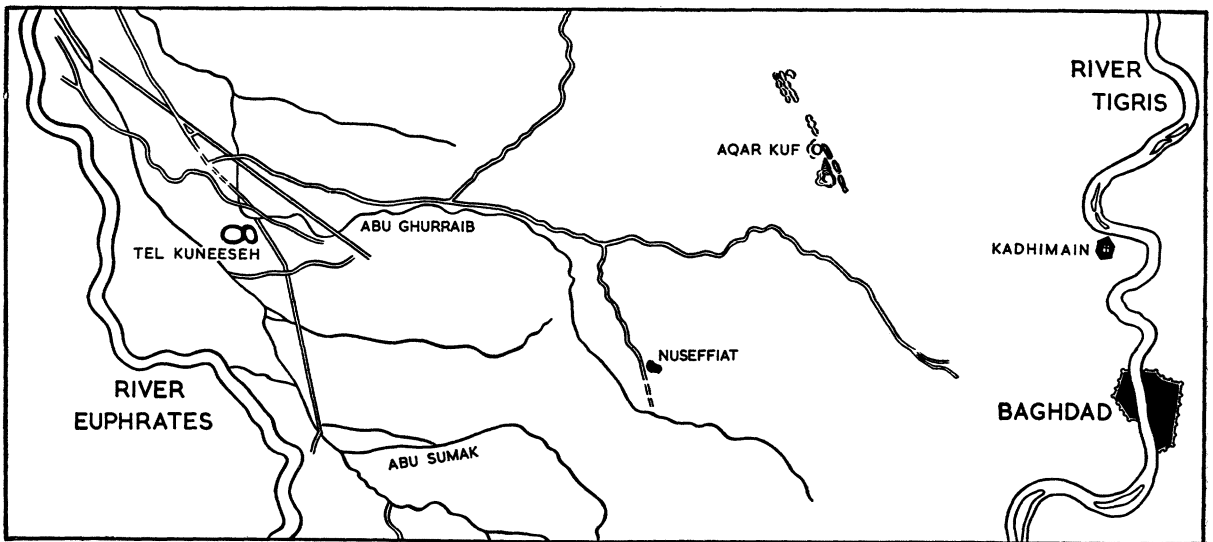


FIG. 3

Sassanian general, Papa bar Nasr, in A.D. 259; its place in Jewish life was then taken over by Pumbaditha, situated at Al-anbar.⁷⁵ North of Nehardea, however, at a distance estimated as 18 parasangs from Babylon and a day and a half's journey southwards from Pumbaditha, was the site of a synagogue, Kenishta dê Safyatib. It was a spot of particular sanctity to the Babylonian Jews, being said to contain stones and earth brought from the Temple at Jerusalem at the time of its destruction in 597 B.C.⁷⁶ I suggest that it is to be identified with the village of Al Nasiffiyat or Nuseffiat, about 50 miles north of Babylon, which still, in 1861, preserved the remnants of its original name [*ku]neise-safyat[ib].⁷⁷ Further, I believe that this, not Tell Kuneise, is the true site of the battle (FIG. 3). The name Kunaxa is accepted as a Grecised rendering of the aramaic *Kenishta*, meaning 'a synagogue',

⁷¹ Colonel Lane, *Babylonian Problems*, calls it Tell Aqar Kanisah, and adds, 'it is 32 metres high, 182 ft. above sea level'. He, however, gives its distance from Babylon as 57½ miles. Lieut. J. B. Bewsher, 'On part of Mesopotamia contained between Sheriat el-Beytha on the Tigris and Tel Ibrahim', *JRGS* xxxvii (1867) quoting Chesney, gives it as 51¼ miles in an air-line from Babel.

⁷² Major Kenneth Mason, 'Notes on the Canal system of ancient sites of Babylon in the time of

Xenophon', *JRGS* lvi (1920) 468 ff. He concludes that the battlefield cannot have been more than 35, or less than 28 miles from al-Anbar, the site of Cyrus' review.

⁷³ *Op. cit.*

⁷⁴ Obermayer, *op. cit.*, 244-78.

⁷⁵ *Ibid.*, 254.

⁷⁶ *Ibid.* 73 n. 1; 248-9.

⁷⁷ Selby and Bewsher, *Survey of Mesopotamia; Sheriat el Beythra to Tel Ibrahim* (1862-5).

and it is clear that the memory of the battle was preserved by the Babylonian Jews until Plutarch's time, or that of his source—Dinon or Ctesias.

For this is the lie of the land and course of the streams which must have faced Xenophon and the Greek army on their march to the battle and afterwards in their retreat, and failure to grasp it has vitiated all previous studies of their route. If the site of the battlefield is placed at Tell Kuneesha-Kuneise, it would imply that they had crossed the Euphrates. But there is no statement that they did so at all, either on their way to the battle or after: the contrary is implied. Admittedly, the passage about the canals⁷⁸ which follows the mention of the Median Wall contains a reference to bridges over the canals, and might conceivably be held to imply that the Greeks crossed the Euphrates by such a bridge at Al-anbar and Falluja and marched down to Tell Kuneise *between* the Pallacottas and the old Euphrates course running through Sippar. Yet this is disproved by the fact that Clearchus, as Xenophon tells us,⁷⁹ held the right wing in the battle with his Greeks flanked by the Euphrates, so it must have been fought either at a point on an east-west line between Al-anbar and Aqar Qûf (or perhaps if the Euphrates was already then running in the Abu Ghureib channel, between Falluja and Aqar Qûf, though this is less likely); alternatively, the battlefield has to be sought further south but still to the east of the old Euphrates course, between Dûr-kurigalzu/Aqar Qûf and Sippar. In fact, the Greeks, after the battle, were in a position 'surrounded by impassable rivers',⁸⁰ i.e. between the Tigris and Euphrates, which they had therefore still not yet crossed. We may work out their itinerary from Pylae as follows:

Pylae (Al-aswad) to <i>x</i> : (site of review):	3 days' march, 12 parasangs.
<i>x</i> to Trench to <i>y</i> :	1 day's march, 3 parasangs.
<i>y</i> to Kunaxa:	2 days' march, (?) 8 parasangs.

Passing the trench must have slowed matters down, but the march after the review when the army was in battle order, leaving the baggage train some way behind, is likely to have been somewhat faster than the usual rate in this region of 3 parasangs to a day. In the next two days, therefore, they may have accomplished 8 parasangs, say about 28 miles. The total march from Pylae (taken as Al-aswad) will then be 23 parasangs, say about 83 miles. The distance from Al-aswad along the river to Al-anbar is fully 40 miles, while that from Al-anbar to Aqar Qûf is about 33; from Aqar Qûf to Al-naşiffiyat, our suggested battlefield, is about 10; total 83. Al-naşiffiyat, at the distance from Babylon prescribed by Plutarch (50 miles or 350 stadia), thus fits the site of Kunaxa. Xenophon's informants, for good reasons, understated the distance to Babylon so as to encourage him.

Kunaxa to Sittace. After the battle, their itinerary seems even more obscure, but luckily, something can be done to interpret it. The king withdrew his main army across the Tigris.⁸¹ But the Greek force, which had distinguished itself in the fighting, proudly refused to consider itself defeated, and, after some delay, decided to retreat, but by a different route from that which they had come, which, though it would be longer, would be assured of supplies. Joined by the army of Ariaeus, who had held the left wing, they marched to the baggage which they had left at the last camp, 4 parasangs back (say 14 miles: i.e. 4 miles along the road west from Aqar Qûf to Ad-dam), then made for some unspecified villages in the Babylonian countryside, marching swiftly for a whole day 'with the sun on their right hand', i.e. in a northerly or north-easterly direction, crossing two canals. The next day, they pressed on over ditches and canals to other villages where they found enough provisions including palm wine to last them for a stay of twenty-three

⁷⁸ i 7.14.

⁷⁹ i 8.4.

⁸⁰ iii 1.1; cf. ii 2.3; 4.5.

⁸¹ ii 4.5.

days⁸² while a truce was being negotiated. Let us assume they marched north 4 parasangs on the swift march of the first day, and, hampered by the canals, only 3 on the second, a total of 7 parasangs (about 25 miles) north or north-east from Ad-dam, which would bring them to the neighbourhood of Al-ehmedi or Megasse.⁸³ After this, the Greeks and Ariaeus' native army agreed to march away under a safe conduct and, in a three days' march (say 12 parasangs = 45 miles) reached the 'so-called Wall of Media' and passed over to the other (inner) side of it. The distance of 45 miles from Al-ehmedi brings us roughly back to Seleucia and the region of the Wall. If this is so, however, they must have passed through the Median Wall, not from south to north, but from north to south (εἴσω) 'within', as he says, and within the lands it protected, or was meant to protect, and were marching away from the Median Wall in a south-easterly direction.

The Wall of Media. This wall, Xenophon says, was made of baked brick laid in bitumen, and was 20 ft. thick, 100 ft. high, and was *reputed* to be 20 parasangs long (about 75 miles!), and lay quite close to Babylon;⁸⁴ some of these figures are palpably exaggerated. Then, in the course of a two days' march of 8 parasangs, they crossed two canals, after which they struck the Tigris near a place called Sittace.⁸⁵ Another four days' march of 20 parasangs brought them to the River Physkos, at the mouth of which was a great city named Opis.⁸⁶ Now it is unfortunate that the positions of neither Sittace nor of Opis are, as yet, positively known, nor is the River Physkos elsewhere mentioned. The important questions of their positions will be discussed later. But what was meant by this 'Median Wall', or 'Wall of Media'? We must remember with Herodotus, that 'the Medes under Cyaxares had conquered all Assyria up to Babylonia πλὴν τῆς Βαβυλωνίης μοίρης' (i 806) which elsewhere he defines as the richly-irrigated area of Mesopotamia, wholly cut up by canals (i 193). It is impossible not to connect this wall with a great defensive wall which, as has been known since 1912,⁸⁷ Nebuchadnezzar (604-561 B.C.) constructed as a sort of Babylonian equivalent of the Great Wall of China; whereas that was intended to keep out the Mongols, this was intended to keep out the Medes, who were then threatening his Empire. '*In the district of Babylon from the chaussée on the Euphrates bank to Kish, 4½ bēru long, I heaped up on the level of the ground an earth-wall and surrounded the City with mighty waters. That no crack should appear in it, I plastered its slope with asphalt and bricks. To strengthen the fortification of Babylon, I continued, and from Opis upstream to the middle of Sippar, from Tigris bank to Euphrates bank, 6 (?) bēru, I heaped up a mighty earth-wall and surrounded the city for 20 bēru like the fullness of the sea. That the pressure of the water should not harm the dike, I plastered its slope with asphalt and bricks.*'

Here are some fairly explicit statements. The wall, running from Opis to Sippar, was 6 (?) bēru (about 25 miles) long, and Sippar was at that time on the Euphrates. This indeed was a fact so important to the Babylonians that the name of the river Euphrates was written in cuneiform as ID.UD.KIP.NUN.^{KI}, literally 'the river of Sippar', UD.KIP.NUN being the Sumerian name of Sippar. It is well to remember this, for the site of Sippar is almost the only known fact in a welter of confusion. It is located by the evidence of excavations at Abu Habbah, now 10 miles to the east of the Euphrates, which has clearly changed its course. Nebuchadnezzar's Wall thus formed a major part of the defences of Babylonia, and, though it proved of no protection against Cyrus the Great when the day of reckoning came in 539 B.C., and Cyrus marched down to Opis and against Sippar and Babylon, nevertheless its fame reached Greek ears. Herodotus⁸⁸ has a long

⁸² ii 3.14.

⁸³ Al-ehmedi: Musil, *op. cit.*, 149.

⁸⁴ ii 4.9, 12.

⁸⁵ ii 4.13.

⁸⁶ ii 4.25.

⁸⁷ Wadi Brisa inscriptions: Weissbach, *Die In-*

schriften Nebukadnezars II in Wadi Brisa (1906). A similar text on a cylinder from Dêr is published by S. Levy, 'Two Cylinders of Nebuchadnezzar II', *Sumer* iii (1947).

⁸⁸ i 185-6.

description of Nebuchadnezzar's works, disguised as the defences built by 'Nitocris', and Strabo likewise knew the Wall, but as the Wall of Semiramis.⁸⁹ By Xenophon's day it had come to be regarded as an advanced frontier protecting the Achaemenid province of Media. But the site of the ancient city of Opis (Akshak) is not exactly known. It has been assumed that Opis lay not far from Seleucia (Tell Umar) on the Tigris,⁹⁰ a site about 18 miles due east of Sippar. Opis, we know, was on the Tigris. It is coupled by Strabo⁹¹ with Seleucia as the limit of navigability of the Tigris in Alexander's time. According to Herodotus,⁹² it lay a little distance downstream below the junction of the Tigris with the Gyndes, perhaps the Diyala (called in Assyrian Turnat, Pliny's Tornadotus).⁹³ Opposite it was a ferry or crossing called Bab-bitki,⁹⁴ but it is not clear on which bank it was; Tiglath-pileser I (*circa* 1100 B.C.) says Opis is on the far (i.e. east?) bank.⁹⁵ but Nebuchadnezzar (in the text quoted above) seemed to imply it was on the west bank. For Xenophon (see below) it was evidently on the east side of the river: and this indeed is the consensus of most of the evidence. Strabo, quoting Eratosthenes, says⁹⁶ that 'the Tigris and Euphrates converge in the neighbourhood of the Wall of Semiramis and Opis, from which village' (how the once great city has shrunk!) 'Euphrates is distant more than 200 stadia', i.e. about 25 miles, if we take the ratio of 8 stadia to a mile.

In 1867, Captain Bewsher drew attention to the ruins of a wall, then called the *Habl-es-Sakhar*, which literally means a line of stone or bricks, between Tell Umar (Seleucia) and Khan el Azad (which he calls Khan-ez-zad). He says:⁹⁷

'The ruins of this wall may now be traced for about 10½ miles and are about 6 feet above the level of the soil. It was irregularly built, the longest side running E.S.E. for 5½ miles; it then turns to N.N.E. for another mile and a half. An extensive swamp to the northward has done much towards reducing the wall. The two caravanserais at Khan-ez-zad are also in a great measure built of bricks from it and it has doubtless supplied materials for many other buildings. There is a considerable quantity of bitumen scattered about, and it was probably made of bricks set in bitumen. I can see nothing in Xenophon which would show that this was not the wall the Greeks passed, for what he says of its length was merely what was told him. I think that this must be the ruin of the wall called that of Media which Xenophon describes; but I mention this supposition with much diffidence and for the benefit of those better able than myself to judge of its being correct. . . .'

Both Weissbach (1929)⁹⁸ and Herzfeld (1948) accept this identification: Herzfeld confirmed the *Habl-es-Sakhar*'s existence from the accounts of the engineers building the Baghdad railway in 1913 and indeed, it must be admitted that it seems to be in some ways in the right place for Nebuchadnezzar's wall. But it follows a very strange and erratic course for a defensive wall, only explicable by the presumed position of former swamps; it

⁸⁹ ii 1.

⁹⁰ L. Waterman formerly claimed that two cuneiform inscriptions bearing names of kings of Opis were found in the excavations of Seleucia. The texts (on two basalt slabs) are published, in translations only, by Waterman, 'Preliminary Report on the Excavations at Tel Umar', *Iraq* 1931 6, as 'Urur, king of Sumer, king of Akshak' and 'Undalulu, king of Akshak, six years'. See also *BASOR* 32 (1956) 18; *Archiv für Orientforschung* v 121; vi 35. [But Professor Waterman now kindly informs me that these inscriptions were really too worn to be deciphered, and withdraws these readings.]

⁹¹ xvi 1.9.

⁹² i 189.

⁹³ *Nat. Hist.* ii 30, 31.

⁹⁴ Waterman, *Royal Correspondence of the Assyrian Empire* 89. In the reign of Sharkalisharri, twenty-third century B.C., the king of Elam advanced as far as Akshak; this suggests it was on the east bank. Cameron, *History of Early Iran* 37-8.

⁹⁵ Luckenbill, *op. cit.*

⁹⁶ ii 1.

⁹⁷ Lieut. J. B. Bewsher, 'On part of Mesopotamia contained between Sheriat el Beytha on the Tigris and Tel Ibrahim', *JRGS* xxxvii (1867).

⁹⁸ *Μηδίας Τείχος* in Pauly-Wissowa, *RE*.

would seem to have been intended as an embankment holding in a vast lake north of Sippar which would correspond with that ascribed by Herodotus to Nitocris, and perhaps is not the Wall of 6 *bēru* between Opis and Sippar, but part of that of 20 *bēru* which contained the artificially filled lake. Unfortunately, we have no photograph of it, since none is published. However, if this is Xenophon's Wall of Media, as seems possible, then for a trench somewhere near Falluja to have reached to it, as Xenophon claims, is impossible; and if a wall *had* reached it from Falluja, it would have had no military sense or purpose.

The few clear facts which emerge from this picture indicate that there were, in fact, at least two series of defensive walls which were intended to protect the Babylonian plains: one, the trench of Artaxerxes, the other, the Sippar-Opis wall of Nebuchadnezzar. Xenophon's army passed through both of them, but he does not appear to have quite realised that they were distinct from one another. To take the second line first: the second, inner line of defence was the 'Magenot Line', built by Nebuchadnezzar from Opis to Sippar, which shows that he envisaged surrendering as indefensible a large and important area of fertile and populous country to the north. This shows the weak position which Nebuchadnezzar had already reached. Like the Maginot Line, it proved an illusory protection to a determined attacker such as Cyrus the Great, who was able to outflank it. The first line of defence lay much further north, where the alluvium begins on a line drawn very roughly from Ramadi on the Euphrates to Samarra on the Tigris. Inspection of the modern map shows that north of this line signs of ancient cultivation cease, for, apart from a few tells on the banks of the rivers and the Wadi Tharthar, there are hardly any more tells marked on the available maps.

The Northern Fortifications. Fifteen hundred years before Xenophon's time, the Sumerians found themselves faced with the problem of protecting their flourishing countryside and wealthy cities from the incursions of barbarian nomads from the north. The Third dynasty of Ur struggled to keep out the Amorite Bedouin or Martu as they were called, and Shu-Sin, King of Ur, dates the fourth year of his reign (2038–2030 B.C.) by the official description as that in which 'Shu-Sin constructed the wall called Muriq Tidnim—that which keeps out the barbarians'.⁹⁹ I am greatly indebted to Dr C. J. Gadd for generously allowing me to quote an unpublished letter in cuneiform found at Ur, in which the architect or commissioner of a king (presumably Shu-Sin), named Sharrum-bani, describes his building of the wall.¹⁰⁰

- (1) To [Shu-Sin, or an officer of his] say:
- (2) Sharrum-bani, councillor of
the assembly (?) speaks (thus);
- (3) 'To make a great wall, *Muriq-Tidne*,¹⁰¹
- (4) As commissioner I was sent.
- (5) It is now before thee; the Martu
to (their) land they have thrown (back)
- (6) To build a wall, to cut off that raid,
- (7) (So that) Tigris and Euphrates together,
- (8) A breach in them should not overwhelm the fields,
- (9) Thou has sent me an order.
- (10) With my levies . . . [i.e. corvée-workers]
- (11) From the bank of the APKAL-canal . . .

⁹⁹ Edzard, *Die Zweite Zwischenzeit Babyloniens* (1952). Gadd and Kramer, *Ur Excavations, Texts*, vol. viii.

¹⁰¹ See above.

¹⁰⁰ U.16885. This letter will be published in

- (12), (13) — — — — — ?
 (14) That wall, being 26 *danna*¹⁰² . . . [long]
 (15) Between the mountain of Aiabu . . .
 (16) For my building, the Martu . . . (who?)
 (17) dwelt [there?] obedience [rendered?]
 (18) — — — ? — — — —
 (19) Between the mountain and (?) — — — —'
 [Little remains on reverse of tablet]

The purport of this remarkable letter seems to be this: Sharrum-bani has built an enormously long dyke, which serves the double purpose both of protecting the country from the floods of the two rivers and from the incursions of the Martu. Its course runs from the AP.KAL or Pallacottas Canal eastwards by Aiabu¹⁰³ (a small city on or near the Euphrates, the name of which was still preserved in the seventh century B.C. as Iâbi) from Falluja, south of the high ground, rising to 80 feet above the plain, described in exaggerated language as 'the mountain', which lies in the desert plain between Falluja and Aqar Qûf. How the wall can have been 26 *bêru* long, i.e. about 100 miles, is a little difficult to see. One can only imagine that it was continued along the banks of the Tigris and the Pallacottas Canal; alternatively, this figure, which is more than twice the distance between Tigris and Euphrates, represents a double line of wall in some way. It may, nevertheless, be no coincidence that it is the same as the two walls of Nebuchadnezzar added together, consisting of 20 and 6 *bêru* respectively. However, even this great wall was ineffective, and Ibbi-Sin, son of Shu-Sin, who reigned over Ur from 2029–2006 B.C., was already in difficulties by his sixth year. The Martu had penetrated his fortifications and, according to another letter, were said to be seizing one great fortress after another.¹⁰⁴ He was compelled to send a general named Ishbi-Irra to buy grain elsewhere in order to alleviate the famine which their invasion had precipitated. But Ishbi-Irra asks for a fleet of 600 boats to be sent to him by way of the river Euphrates, 'the river of the Mountain', and the 'dug Canals':

'To Ibbi-Sin my king speak; thus says your servant Ishbi-Irra:

'You have charged me with an expedition to Isin and Kazallu to buy grain. The grain has reached the price (of) 1 *gur* for each (shekel) . . . (and to date) 20 talents of silver have been spent for buying grain. But now having heard the report that the hostile Martu have entered your country, I brought into Isin the 72,000 *gur* of grain—all of it. Now the Martu—all of them—have entered the midst of the land (Sumer) (and) have seized the great fortresses one after the other. Because of the Martu I am not able to transport (?) that grain; they are too strong for me (and) I am immobilized. Let my king have 600 boats (with the capacity of) 120 *gur* each caulked; let him (?) . . . a boat (of?) 72 . . .; let him (?) 50 . . . (and) 1 door (and) . . . boat; and let him [collect] all (these) boats. (Then) let them be brought down to the narrow (?) . . . by (way of) the River, "the River of the Mountain" and the dug canals; and I will . . . before him. Put me in charge of the places where the boats are to be moored (and) . . . all the grain will be stored (?) in good condition. If you shall lack grain I will bring you the grain. My king, the Elamites have been weakened in battle, their grain . . . has come to an end. Do not weaken. Do not agree to become his slave, and do not walk behind

¹⁰² I.e., *bêru*, double-hour's march.

¹⁰³ A town called Aiabu is mentioned as on the Euphrates in a letter from Mari, *Syria* xix 121 ff. It is probably the same as Iâbi, mentioned in a text of the seventh century B.C., apparently in the neighbourhood of Ramadi—see Musil, *op. cit.*, 212–13.

¹⁰⁴ This letter is published in part only by Jacobsen, 'The Reign of Ibbi Suen', *JCS* vii 39–40. I owe a complete translation to the kindness of Professor S. N. Kramer. On this period see Jacobsen, *loc. cit.*, and Edzard, *op. cit.*, ch. 5.

him. I have (enough) grain for 15 years (to satisfy) the hunger of your palace and its cities. My king, put me in charge of watching over Isin (and) Nippur.'

Again we see the 'mountain' to be an important feature of the northern defence. In reply, Ibbi-Sin complains bitterly and storms that the 'Commandant of the Fortress before the Mountain' (Bad-Igi-Hur-Sagga) has failed in his duty to hold up the Martu.¹⁰⁵ In a letter to his master Ibbi-Sin, the offending officer, named Puzur-marduk, writes:¹⁰⁶ 'The enemy holds his forces ready for battle. The Wall is not strong enough against him', and he mentions the names of his neighbours, who include Taki-ilishu, Dyke-officer of the AP.KAL and ME.Enlil canals. Six years later, Ishbi-Irra proclaimed his own independence from Ur as King of Isin,¹⁰⁷ and in due course claimed dominion over the whole of Sumer 'from the camps of the banks of the Tigris and Euphrates, and from the banks of the AP.KAL Canal and the ME.Enlil Canal, from Hamazi to the sea of Magan'. This is clearly an expression describing the full length of the country like 'Dan to Beersheba' or 'Land's End to John o' Groats'. Ibbi-Sin, however, continued to reign at Ur, and in his seventeenth year in another date-formula, claims to have defeated the Martu 'who stormed in like the south wind';¹⁰⁸ but in Ibbi-Sin's twentieth year there was a famine again in Ur.¹⁰⁹ Ishbi-Irra's grip on Central Mesopotamia was complete, and soon afterwards the Empire of Ur came to an end.

The impression we receive at this period is that the northern frontier of Sumer lay along the line of the easterly bend of the Euphrates river where it runs from above Falluja towards Aqar Qûf; there it met the ME.Enlil Canal which, I conjecture, joined it to the Tigris. Was it the Jalu canal, now dried up? At some later date—probably under Hammurabi—the defences may have been pitched further north, since Hammurabi established a fortress on the Tigris called Kar-Samaš, and another on the Euphrates at Rapiqu, usually located opposite Falluja.¹¹⁰

Sittace. The impression must not be given that the Greeks had lost their bearings in marching south-west to Sittace. What they did was for good reasons. As Ariaeus pointed out to them,¹¹¹ their army could not retreat the way they came by the Euphrates' right bank, since they had eaten up what provisions were to be found there on the way. They could not ford it in the face of the enemy, to retire up the more fertile left bank. It only remained to take the route up the Tigris. But the route along the Tigris right bank was impossible for an army of any size, involving as it did crossing a desert of six days' march. Antiochus III, marching to relieve Seleucia in 220 B.C. according to Polybius,¹¹² explicitly for this reason gave up the idea of travelling by the right bank of the Tigris as impassable. Tukulti-Ninurta II did it in part in 824 B.C., travelling southwards very fast, but only by mainly following the well-watered Wadi Tharthar, and nevertheless suffered great hard-

¹⁰⁵ Jacobsen, *loc. cit.*

¹⁰⁶ Letter from Kish, quoted by Edzard, *op. cit.*, 47 and n. 208. The AP.KAL and ME.Enlil are again linked in a text of Halium (of Kiš?) a contemporary of Shumu-abum of Babylon, who dammed them. Edzard, 113.

¹⁰⁷ Letter from Puzur-Numushda, governor of Kazallu, to Ibi-Sin, apparently in his twentieth year, quoting Ishbi-Irra's proclamation, and describing the latter's forcible annexation of several cities, Nippur, Subir, Hamazi, Girkal, his pardoning of Eshnunna, Kish and Bad-zi-abba, which have defected to him, and his seizure of the 'banks of Tigris, Euphrates, NUN.ME[AP.KAL] and ME.Enlil canals'; Falkenstein, *Zeitschrift für Assy.* xlix 60.

¹⁰⁸ Edzard, 33.

¹⁰⁹ 'In this year in Ur they sold gold and silver and other precious objects in the temples to pay Isin'; Edzard, 47.

¹¹⁰ In his thirty-fifth year. See Meissner, *Babylonien und Assyrien* (1920-5). For the possible site of Rapiqu, see Goetze, 'An Old Babylonian Itinerary', *JCS* vii, map on p. 72.

¹¹¹ ii 2.11-12.

¹¹² Polybius v 51.6. Zeuxis warns Antiochus that if he marches from Liba along the right bank, he would, after six marches, come to the 'Royal Ditch' and would have to return if it were held by Molon and he were unable to force a crossing.

ship. The normal route by which the Assyrian armies in the eighth and seventh centuries used to descend on Babylonia was by the left bank of the Tigris, via Turnât. But for the Greeks to cross the Tigris to the left bank was possible only at Opis or Sittace, which were bridgeheads for the Ekbatana and Susa roads respectively. Certainly at Sittace, perhaps at Opis too, the river was crossed by a bridge of boats; Artaxerxes' army had withdrawn across the Tigris; if it was via Opis, he may have destroyed or dismantled a bridge behind him, if it existed, since Xenophon does not even mention it as he passed it on the left bank. In these circumstances, the invaders had no option but to make for the crossing at Sittace.

In the course of two days' further march from the Median Wall—a distance of 8 parasangs (say 30 miles)—they crossed two canals, one of them by a permanent bridge, the other by a pontoon bridge of seven boats.¹¹³ We are told that these canals were derived from the Tigris and fed a network of irrigation channels. The first of these canals was probably the Archôus (=Arahtu?), which flowed from the Tigris near Opis, and later, through Apameia.¹¹⁴

This march of two days brought them to the Tigris bank, near a place called Sittace, evidently located on an island formed by the second of these canals with the Tigris; here they camped in a large park, well wooded and stocked with game. Just beyond it was the crossing of the Tigris, effected by means of a pontoon bridge of thirty-seven boats. The Persians were said to be afraid that the Greeks might wish to seize and hold the island formed by the canal and the river Tigris.¹¹⁵

Where was Sittace? Herzfeld¹¹⁶ places it near the Islamic city of Wâsit, but this is much farther than 8 parasangs from the region of the Median Wall. According to Pliny,¹¹⁷ it lay, with Sabdata, to the east of the Tigris, opposite Antiochia, 'between' the Tigris and Tornadotus (Diyala) river. Sitacene, according to Strabo, stretched due east of Seleucia. An alternative later Greek name for Sittace was Apollonia, and for Sitacene, Apolloniatis, a district which, according to Strabo, joined with the Zagros to form the southern boundary of Media.¹¹⁸ Thus for Strabo and Pliny, Sittace lay on the east bank, and it would seem that the Tigris here is somewhat unstable. A distance of some 30 miles from Seleucia would bring us to a crossing in the neighbourhood of Aziziye, where the Tigris today describes a big loop towards the east; but a century ago, there was a second loop in the Tigris, now dried up, just south of Aziziye, such as could effectively have formed an island. In the centre of this loop lies a large double mound bearing the name of Humanîyê; it marks the site of a town of the Sassanian or early Islamic period,¹¹⁹ and its security was ensured by a wall which formerly closed off the neck of the loop, according to Lieut. Collingwood's map of 1861 (FIG. 4).¹²⁰ Near the wall was a small fort of *tetrapyrion* type, similar to that at the ends of the Istabalat and Umm Raus walls. Near the base of the loop were to be seen remains of a huge double canal running north-west to south-east,¹²¹ parallel to the main course of the Tigris embankment. Beneath the town of Humanîyé, it would appear, the site of Sittace should be sought.

The army then crossed the Tigris by the great bridge of boats, wheeled round, and marched for four days towards the north, a distance of 20 parasangs, to Opis, 'a great

¹¹³ ii 4.9–12.

¹¹⁴ *Item Apamea, cui nomen Antiochus matris suae imposuit; Tigri circumfunditur haec, dividitur Archôus* (Pliny, *NH* vi 21.132). In his campaign against Bit-Yakin, Sennacherib brought Phoenician and Greek shipwrights and sailors to Nineveh and built galleys there, which he sailed down the Tigris to Opis, then dragged them on sledges (?) to the Arahtu to be refloated. There were two Apameas, Upper and Lower. The Upper is identified with Yakut's Zur-Famia (thirteenth century A.D.) and lies near Numaniya; Obermayer, *op. cit.*, 86.

¹¹⁵ ii 4.13.

¹¹⁶ *Op. cit.*

¹¹⁷ *Loc. cit.*, *Inter has gentes* (the Medes and Adiabenis) *atque Mesenen Sittacene est, eadem Arbelitis et Palaestine dicta. Oppidum ejus Sittace Graecorum, ab ortu et Sabdata, ab occasu autem Antiochia inter duo flumina Tigrim et Tornadotum.*

¹¹⁸ xi 13.6 *cf.* xv 3.12; xvii 17.

¹¹⁹ Lestranger, *op. cit.*, 37.

¹²⁰ Collingwood's map, *From Hillah to the Ruins of Niffer* (1861/2).

¹²¹ The Arahtu-Archôus?

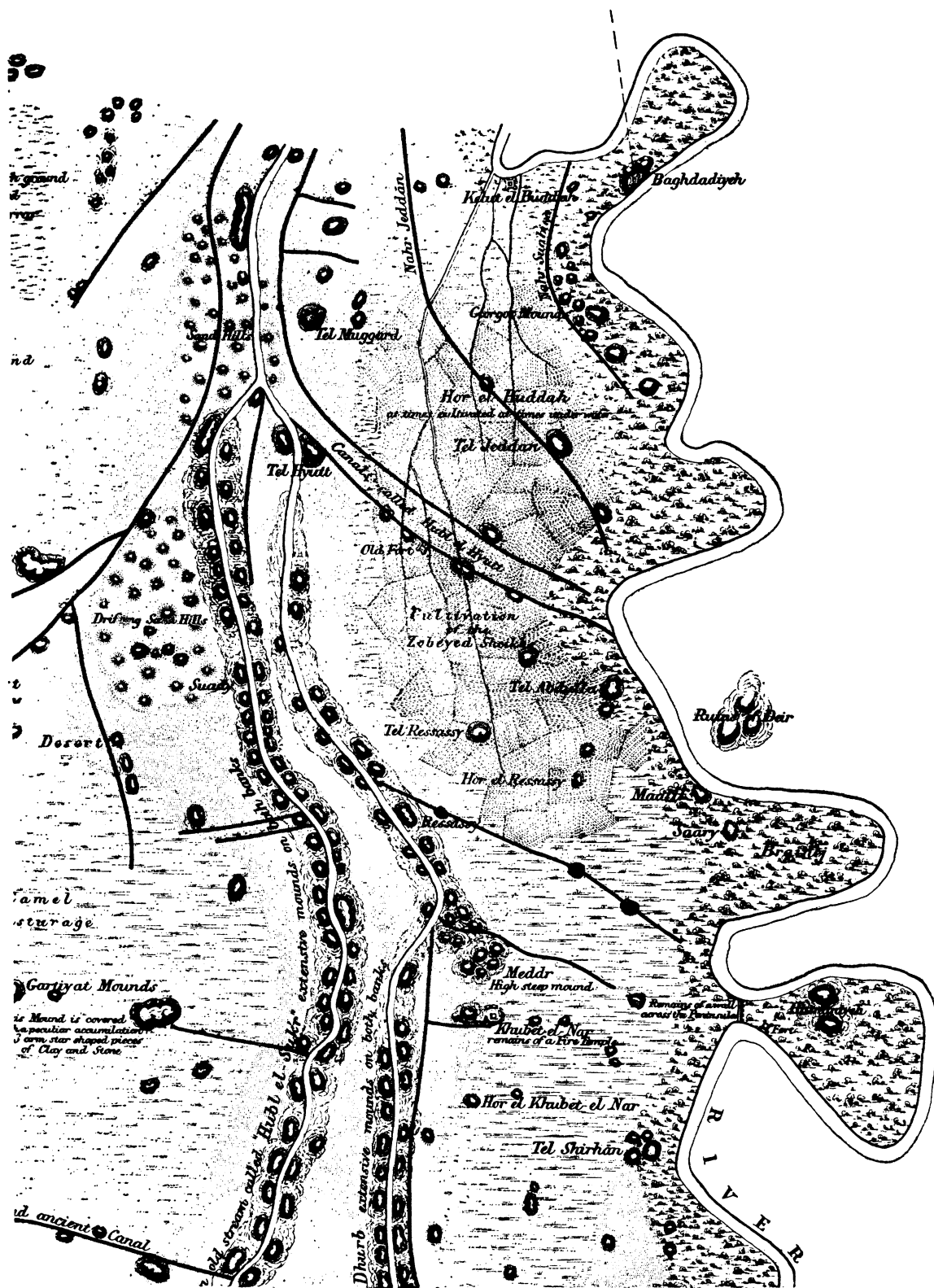


FIG. 4. Map (Collingwood) showing site of Humanîyê in lowest loop of the river.

city', which lay beside a great river, a *plethron* wide, crossed by a bridge.¹²² Xenophon calls this river the Physkos, but this is only a version of an Aramaic word for 'crossing', from the Aramaic-Semitic root *psh*, also found in Thapsacus. It is clear it was the Diyala.

Opis to the Zab. From Herodotus' account of Cyrus the Great's invasion of Babylonia, it is clear that Opis lay a little below the junction of the Tigris with the Gyndes, (Diyala or perhaps the Adhaim). But the Diyala mouth is hardly more than 40 miles from our presumed position for Sittace. Probably the parasangs were shortened by the delays involved in the crossing. The Greeks again may have made a big *détour*, either because they lost their way, or as is more likely, because they were treacherously misled by Tissaphernes, who was trying to gain time until the fresh army under Artaxerxes' brother should arrive to support him at Opis against the Greeks. In fact, the Persian army arrived, but was overawed, and preferred to keep the truce. From the Physkos bridge they marched northwards rapidly for six days for 30 parasangs (say 110 or 112 miles) through the deserts of the province of Media to the villages of Parysatis.¹²³

At this date, the eastward bulge of the Tigris above Baghdad did not exist, its course running more or less direct through Harba bridge, west of Kadisiyah and Ukbara, its present course being cut only in the tenth century. Now there is no mention of any crossing of the river Adhaim or other streams; as this was the season of low water, lesser streams may well have been dry, including the Adhaim, which, except during the winter rains, used to lose itself in the quicksands of the plain below Dakûk, at least till the fourteenth century.¹²⁴ The villages of Parysatis, where they found corn and sheep, nevertheless, were close to the Tigris, since from there they proceeded along its bank. The villages of Parysatis must thus have been about Dûr or Daur (the '*Dura of the shepherds*' of Talmudic sources),¹²⁵ where the character of the countryside visibly changes and permits sheep grazing. The large and prosperous city called Kainai,¹²⁶ built on the other side of the river from which the natives crossed on *keleks* bringing provisions, may have been Tekrit (the Babylonian Takritâin).¹²⁷ For four more days they marched along the Tigris bank, the alluvial plain having been left behind, for 20 parasangs (say 75 miles), bringing them to the Zapatas river, or Zab.¹²⁸ Here they rested three days, while the tragedy was prepared which resulted in the trapping and assassination of the Greek generals by Tissaphernes and their desertion by Ariaeus; after a council of war in which Xenophon was elected a commander, they burnt their waggons and tents and set off in a hollow square and crossed the Zapatas, which was 4 *plethra* wide. They reached a watercourse, and after a rearguard action which took place about a mile beyond the watercourse, they got back to the Tigris and reached the city of Larissa,¹²⁹ which, it may be suggested, represents the Assyrian *al šarruti*, 'capital city'. This was a large (evidently) Assyrian city, by then deserted, with a stone pyramid 50 ft. high and walls 25 ft. broad and 100 ft. high, forming a circuit of 2 parasangs and being made of baked brick on a stone foundation, 20 ft. high. Now there is no suitable Assyrian site north of the lesser Zab: on the other hand, the description of Larissa nicely fits Nimrud (PLATE Ib), ancient Kalhu, where the citadel was built on a stone 'quay wall' which was at least 10 m. high on the west side of the mound (PLATE III), and where a *ziggurat* 70 ft. high still stands in the north-west corner, the circuit of its walls being about

¹²² ii 4.25.

¹²³ ii 4.27.

¹²⁴ Lestrangé, *op. cit.*, 92.

¹²⁵ For references see Obermayer, *op. cit.*, 142. Here the Roman army crossed the Tigris after Julian's death (Ammianus xxv 6.8). 'Da Dura nicht mehr in die eigentliche, reich kultivierte babylonische Zone fällt indem schon unterhalb Dura der reine alluvialboden Babyloniens seine Nordgrenze

gefunden hat, so dürfte in alten Zeiten, ebenso wie Gegenwärtig, die Umgebung von Dura als Weideplatz für Schafherden gedient haben' (Obermayer, *loc. cit.*).

¹²⁶ ii 4.28.

¹²⁷ For Takritâin, or Birtu, see Musil, *op. cit.*, 363.

¹²⁸ ii 5.1.

¹²⁹ iii 4.7.

4½ miles.¹³⁰ But Nimrud is about 10 miles north of the Great Zab, and one is driven to conclude that, perhaps in the excitement of the Generals' ambush and the battle, or at some later date, Xenophon's notes became mutilated or confused and the two Zabs were telescoped into, or misunderstood as one, the intervening 60 miles being omitted. I cannot suppress the suspicion that before emerging as leader Xenophon may have been under arrest (*cf.* his dream, iv 3.7), held *incommunicado* by one of the parties of quarrelling and suspicious Greeks, and that his silence here conceals the fact. Six more parasangs brought them to the vast undefended wall built of bricks on a base of stone full of shells, near the city called Mespila, evidently also abandoned:¹³¹ and the view that this was the site of Nineveh (Kouyunjik), deserted since its capture by the Medes in 612 B.C., must surely be correct.¹³² Kouyunjik is about 20 miles north of Nimrud, though the periphery of its walls is about 7½ miles, not 6 parasangs. Naturally, this figure was only hearsay. Mespila clearly reflects the Assyrian word *mušpalu*—'low', a term applied to the lower town as opposed to a citadel, or to a depression.¹³³ It seems to be preserved in that of Mawsil, the earlier form of the name of Mosul, across the river.¹³⁴

The sternest tests of all still lay ahead for the Greeks. The battles they had fought and the distances which they had covered by forced marches in Mesopotamia were remarkable enough. But any who, like the present writer, may have crossed the truly formidable passes of the Bin Göl Dağ rising to 10,000 ft. in the comfort of a modern Land Rover on a modern road from Bitlis to Erzurum in summer may perhaps gain some better idea of the almost incredible discipline, high morale and almost superhuman powers of endurance of this force, who crossed these mountains of Kurdistan and Eastern Turkey in mid-winter, neither suitably trained, equipped nor clad for the purpose, and subject to intermittent attacks from enemies fighting on their home ground.

To follow this part of their journey, however, is no longer our purpose here. We can only echo the admiration of Plutarch's Antony:¹³⁵ *φθειρομένων δὲ πολλῶν καὶ τῶν Πάρθων οὐκ ἀφισταμένων πολλάκις ἀναθέγγεσθαι τὸν Ἀντώνιον ἰστοροῦσι· ὧς ΜΥΡΙΑΙ θανατοῦντα τοὺς μετὰ Ξενοφῶντος, ὅτι καὶ πλείονα καταβαίνοντες ὁδὸν ἐκ τῆς Βαβυλωνίας καὶ πολλαπλασίοις μαχόμενοι πολεμίοις ἀπεσώθησαν.*

R. D. BARNETT.

British Museum.

¹³⁰ Layard, *Nineveh and Babylon* (1853) 123–6 for the ziggurat. For the circuit of the walls, see Felix Jones's map, *Nimrud and Selamiyeh* (1852).

¹³¹ ii 4.10.

¹³² R. C. Thompson and R. W. Hutchinson, *A Century of Excavation at Nineveh* (1929) 138.

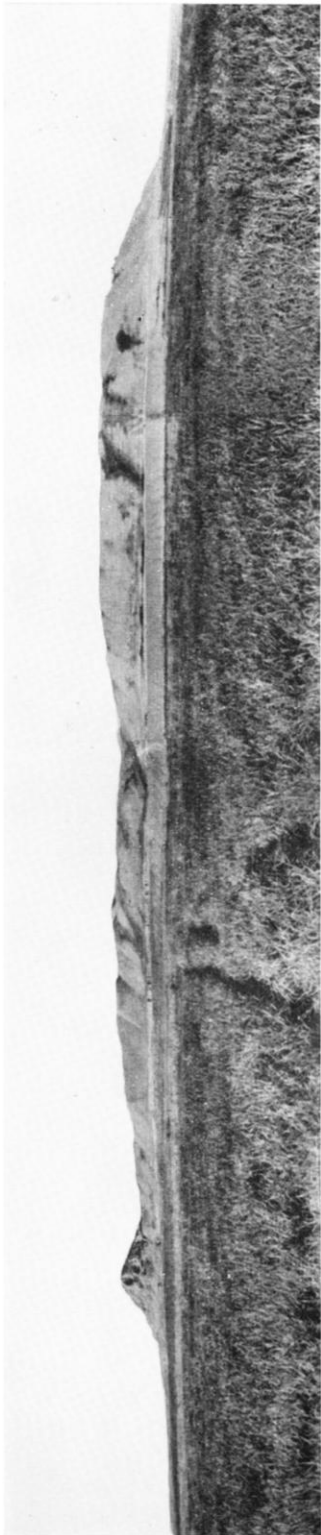
¹³³ Thompson and Hutchinson, *op. cit.* Herzfeld, *Encyclopaedia of Islam*, s.v. 'Mosul', doubts the identification.

¹³⁴ Lestrangé, *op. cit.*, 87.

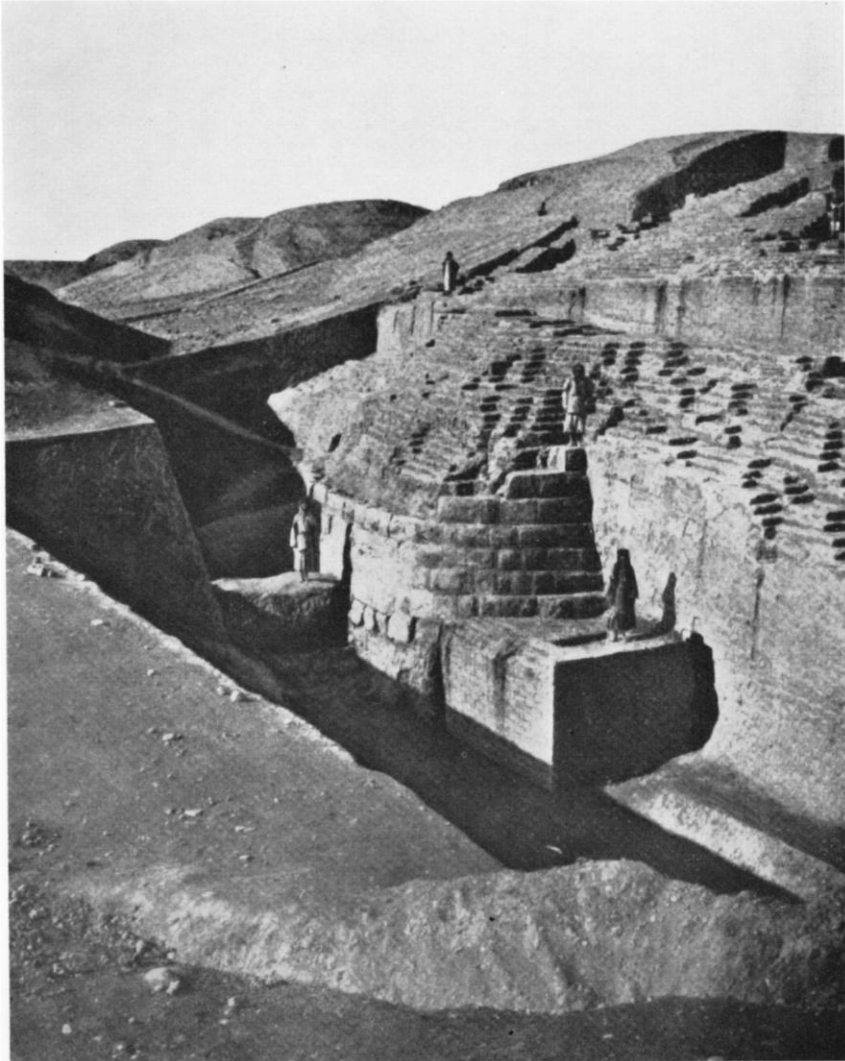
¹³⁵ Plutarch, *Antonius* 45.



a. The wall called Al-mutabbbaq

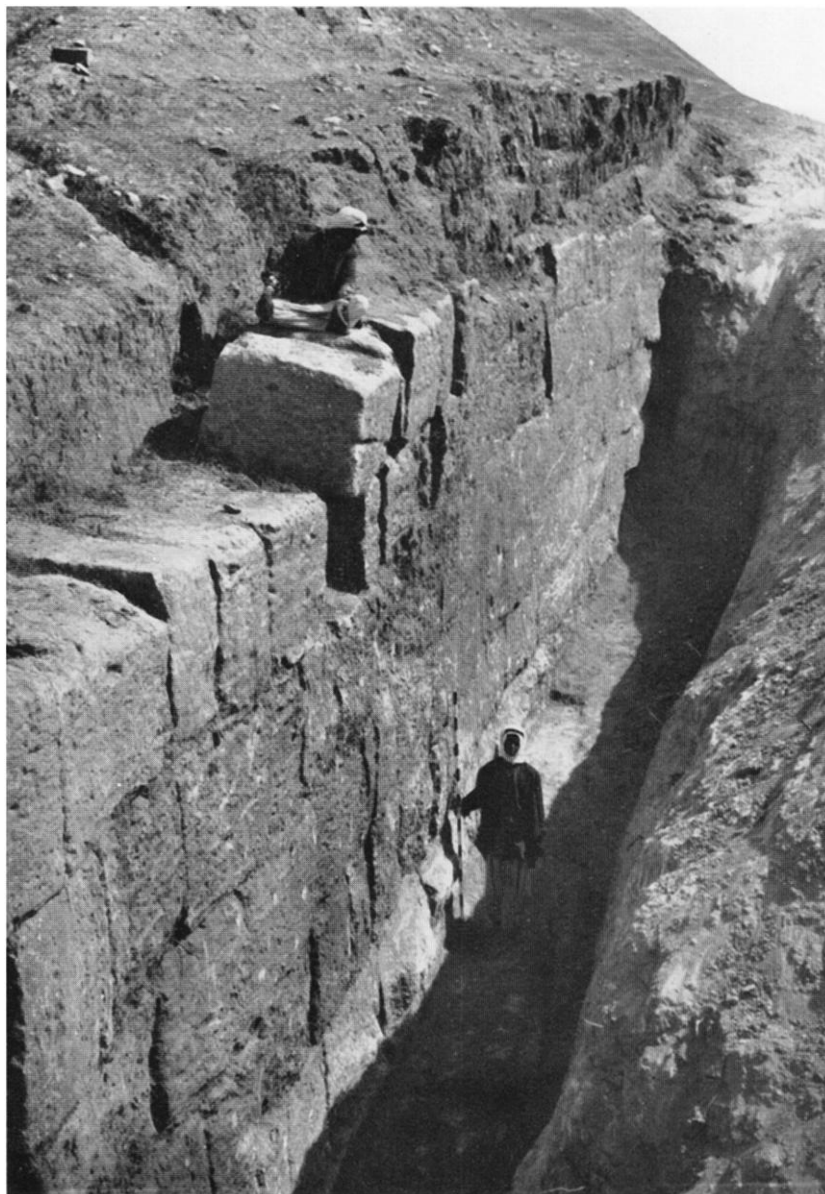


b. Nimrud, a general view. Photo M. Mallouan
XENOPHON AND THE WALL OF MEDIA



The bastion wall at Assur

XENOPHON AND THE WALL OF MEDIA



The quay wall at Nimrud

XENOPHON AND THE WALL OF MEDIA